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STATE of MONTANA

STATE HIGHWAY COMMISSION

HELENA, MONTANA

BIENNIAL REPORT

FISCAL PERIOD

July 1, 1960 to June 30, 1962

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STATE of MONTANA

STATE HIGHWAY COMMISSION

HELENA, MONTANA

BIENNIAL REPORT

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July 1, 1960 to June 30, 1962

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MONTANA

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BIENNIAL REPORT

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July 1, 1960 to June 30, 1962

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STATE OF MONTANA
TIM BABCOCK, GOVERNOR

COMMISSIONERS
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BILLINGS
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TED JAMES, MEMBER
GREAT FALLS
JOHN D. WHEELER, SECRETARY
HELENA

FRED QUINNELL, JR.
STATE HIGHWAY ENGINEER

HIGHWAY COMMISSION
STATE HIGHWAY DEPARTMENT
HELENA, MONTANA

IN REPLY REFER TO:

November 12, 1962

The Honorable Tim Babcock
Governor of Montana, and
The Legislative Assembly
of the State of Montana

Greetings:

Pursuant to the provisions of Section 2, Chapter 98, Session Laws of Montana, 1959, we have the honor to submit to you our biennial report covering the fiscal period beginning July 1, 1960 and ending June 30, 1962.

Respectfully submitted

STATE HIGHWAY COMMISSION

By Roy L Sorrells
Roy L. Sorrells
Chairman

The Interstate Highway at Superior on Route 90.

STATE HIGHWAY COMMISSION

HELENA, MONTANA

September 15, 1962

The Honorable Tim Babcock, Governor of Montana
The Legislative Assembly of the State of Montana
The Highway User

Greetings:

The Legislative Assembly has decreed that the State Highway Commission shall be composed of five members appointed by the Governor to four-year terms of office. It decided that only three Commissioners may be from the same political party. All appointments require approval of the State Senate. The law also decrees that each Commissioner shall reside in and represent a specified area of the State by naming the counties comprising each of the five Districts.

The Commission handles the expenditure of State and Federal funds for improvement and maintenance of eligible highways, conducts affairs of the organization, sets policy and interprets and applys the directives established by law.

Meetings are held each month in the Montana Highway Department building at the main office headquarters in Helena. The Commission transacts necessary business and meets with delegates and individual citizens. The State Highway Engineer presents Departmental business at each session. Action taken by the Commission is recorded and becomes a matter of official public record. Our meetings are held under the "open door policy" and members of the press and public are invited to attend.

The Commission must approve all administrative policies and general engineering standards used by the Department and must regularly review the construction program and progress, the fiscal position and all major property acquisitions, transfers and sales. The Commission decides which highways shall be a part of the State highway System and which projects shall be recommended for construction.

The State Highway Engineer administers the affairs of the Highway Department under the policies established by the Commission. The complex engineering and administrative groups, which man the Montana Highway Department, all work under the direction of the State Highway Engineer. He is responsible for the direction of the work of the employees in accordance with the prevailing laws.

One of the functions of the Commission is the preparation of an annual budget which guides the work of the Montana Highway Department through the ensuing fiscal period. The budget is recommended to the State Budget Director by the Commission for his action and he has, under the law, the power to veto any item in the budget for any reason he deems to be appropriate.

Generally speaking, the cost of constructing the Federal-aid Interstate System will be borne about 92% from Federal appropriation and 8% from State source revenues. The Federal share approximates 57% and the State share 43% on the other Federal-aid Systems.

Montana's financial district law assures the regular and quite uniform distribution of highway construction funds throughout the State. The funds appropriated to one of the Federal-aid Systems can be transferred to another Federal-aid System to only a limited extent.

Under no conditions can Federal-aid funds be used for anything except functions directly concerned with the construction of highways. The maintenance of Federal-aid highways is excluded from participation in Federal grants in aid. After construction, the cost of maintenance of the highway is borne entirely by the State.

The 1956 Federal-aid Act places tremendous importance on the complete construction of the National System of Interstate and Defense Highways. This system is composed of some 41,000 miles of the most important highways in the nation. Approximately 1180 miles traverse Montana. The engineering standards have been established on a nation-wide basis and it is to be built in a manner which will make it capable of handling the traffic volumes that are estimated to exist in the year 1975. The standards are uniform for the entire United States and have been accepted officially by all of the States and the Federal government.

It is the objective of the State Highway Commission to facilitate the general highway travel of the people of Montana on all levels—City Streets, County Roads and State Highways.

The highway construction program, as developed, is in each case based on public needs and engineering studies, supported by traffic analyses, (comprising origin and destination data volume of vehicles, types of vehicles) and public hearings. The program, making use of Montana road user dollars and various matching funds, is devised to offer the best roadways under the circumstances and conditions.

The Federal-aid Highway System and the State System of Highways are closely tied together by the laws of the State. Chapter 32, Revised Codes of Montana, as amended, describes the State Highway System and other roads and streets within the State and prescribes rules and regulations for their administration. The actual mileage of highways, classed according to their type of surface, which existed on the various components of the State Highway System on December 31, 1961, is shown in TABLE "A" on Page 9. TABLE "B" shows mileage by such governmental areas as city, county, national forest, Indian reservation, etc.

Many inquiries are received which indicate a general belief that the US route markers along a highway are an indication of its Federal-aid status. Actually nothing could be farther from the truth. The US shield, with its number, is placed on a highway by the State only after approval by the American Association of State Highway Officials. This is a technical association of state highway officials which studies any request for a US numbered route and determines whether the proposed route is of a type which would entitle it to the numbered status. The real purpose of the route numbering system is to identify highways which, by reason of their general excellence, are the best routes of travel between distant points. They are a major aid to trans-State and transcontinental traffic.

The Secondary State Highway System was devised by The Congress to bring farm and other natural resource products to the Primary State Highway System to marketing and distribution centers. It is required that the County Commissioners, of a county in which a proposed Secondary road lies, must concur with the State regarding the road's necessity before it may be submitted to the Bureau of Public Roads for approval.

It is the belief of the State Highway Commission that adequate State matching funds will be available from the usual sources during the next biennium. It is, indeed, gratifying not to be requesting additional State money.

The Commission expects to present to the Legislative Assembly a few proposals for changes and amendments to the statutes for the purpose of improving operating conditions and functions. These proposals will be submitted in adequate time for review prior to consideration during the assembly.

Respectfully yours,

Roy L. Sorrells, Chairman
S. N. Halvorson, Vice-Chairman
Otis S. Waters, Member
George M. Gosman, Member
Ted James, Member

OBSERVATIONS OF THE STATE HIGHWAY ENGINEER

The operations and accomplishments of the Montana Highway Department during the biennium covered by this report have been very interesting and quite extensive. The number of miles of highway and footage of bridges let to contract during the period exceeds those of any biennium in the history of the Department.

This biennium has been one of acceleration for the Montana Highway Department. Federal funds were made available to continue the rapid construction of the Interstate System. The effect of this action on our Department was to more than double the annual construction program.

Since The Congress has indicated its intent to have the Interstate System constructed during a brief period of time, the Department has accelerated to this expanded program which will be sustained over a period of 10 to 12 years. Construction on other Primary Highways and the Secondary System has kept apace. Bids were opened, and awards subsequently made, on projects totaling a value of $72,503,497 during the biennium. $1,146,393 was awarded for work other than highway and bridge construction. Some contracts were let prior to the biennium and completed therein; others were let during the biennium and completed therein; others were let therein but not completed.

It has been possible to increase the work of the Department without large increases in personnel. Effective management training methods, adopted for the purpose of making better managers of our key engineering people, are beginning to pay dividends in more efficient operation. Use of electronic calculating equipment, aerial photography and other recent advances in equipment and methods also are used to increase productivity.

The number of personnel employed by the Department during the biennium has not increased in proportion to the miles of road let to contract nor the money spent in so doing. The PERSONNEL REPORT (Page 19) conveys some interesting data. The Chart on Page 18 reflects the organization of the Commission and Department and its relationship to the office of the Governor. The Commission hired a consulting firm to review, study and make recommendations for improvement of our personnel and functional operations. The report was received in April, 1962, and the recommendations contained therein are being given serious consideration.

The HIGHWAY CONSTRUCTION REPORT, beginning on Page 21, provides some very informative details of what was accomplished and will not be repeated here. However, I sincerely recommend that the interested reader carefully scan that portion of this report because some remarkable accomplishments are reflected therein.

The tabulation on Page 9 denotes that the Federal-aid Highway System is made up of three distinct types of routes. The Interstate routes have been identified in the 1956 Federal-aid Act as "A National System of Interstate and Defense Highways." The Federal-aid Primary routes cover a major portion of the other important trunk highways in the State. When the Interstate System is completed it will replace some 1100-1200 miles of the Primary System. Federal-aid Secondary routes are feeder roads covering farm to market and other similar community type service roads. The maps on Pages 13, 15 and 17 show all those roads which constitute the State Highway System. By laying Pages 13 and 15 on top of Page 17, one can attain a picture of the entire system. Pages 23, 24, 25 and 26 provide tabulations which show detailed information regarding contracts completed during this biennium. This report also shows a summary of other highway construction work let to contract during the period but not completed therein.

I can safely state that, of all zones of endeavor that have given us trouble and frustration during the biennium, the one involving the acquisition of right-of-way has been about the most perplexing and has caused the greatest delay in our progress. The legislation enacted by the 1961 Legislative Assembly has aided the Department tremendously in procuring rights-of-way but the problem remains difficult. It is becoming more and more difficult to acquire land for highway construction purposes when property owners have no desire, whatsoever, to release title. The RIGHT-OF-WAY REPORT provides some more interesting reading. Please turn to Page 31. The problems encountered in right-of-way acquisition have caused a tremendous increase in our legal staff. I can reliably or truthfully state that one attorney and a stenographer could easily handle all of the Department's legal problems not involved in right-of-way. The acquisition of right-of-way and processing of documentation requires many attorneys and stenographers. A great many cases are involved in condemnation proceedings and this alone is a complicated and tedious assignment, requiring several competent attorneys.

Highway construction financing has moved along at a very even pace over the years. The biennium covered by this report found the Department in its best financial condition over a long period of time. We were fortunate in having adequate State funds to match all available Federal funds. The FINANCIAL REPORT, on Pages 33 to 36, reflects the receipts and expenditures of the Department and also reviews some of the interesting highlights of the operations of the Accounting Division.

The Gross Vehicle Weight Division, which acts for the Commission in the field of truck and trailer fees and related functions established by law, reports biennium collections surpassing any previous like period. Fees and receipts for the biennium are listed on Page 32.

Highway maintenance—keeping the roads and bridges in the best possible condition throughout the year—is continually becoming a bigger problem. However, I am certain that, considering the vast mileage of our system, the population of Montana and the complexity of its geography and climate, we rank at the top of all the states in quality of maintenance. Every year sees more miles added to the system. During the biennium, the Department assumed the maintenance of some 294 miles of secondary roads previously maintained by the counties. In spite of increased costs of operation, our Maintenance Division keeps all roads in excellent condition for the traveling public at all times. The MAINTENANCE REPORT, beginning on Page 37, is recommended for serious review and study. There will come a day when we won't have enough money to do a satisfactory job unless some consequential changes are made.

The tables on Pages 7 and 8 show the mileage by surface types in each of the counties as of December 31, 1961. The tabulation includes work let to contract but not completed. Page 17 shows the Financial Districts, counties and primary system.

Page 10 shows the estimated distribution of construction funds to the various counties and highway systems on a percentage basis.

Tables "A", "B", "C", and "D" on Page 9 show mileages of various surface types by highway systems—Primary, Secondary, National Forest, County Roads and Streets.

The map on Page 11 shows the average daily traffic over all segments of the Primary Highways and those Secondary Highways carrying higher volumes.

The dissemination of information to the press and the public in general has been a very interesting and profitable endeavor. We have utilized photography, public meetings, news releases and other sources to keep the public informed of our operations. Public hearings are conducted whenever necessary and advisable to explain why we wish to by-pass a community or why we must do certain things in a seemingly unorthodox manner.

Our Safety Section concentrates its efforts on safety of operation, continually impressing on all personnel the importance of observing all the rules of safety.

A large staff is required in the main laboratory in Helena, as well as in the smaller field laboratories throughout the State, to carry on the work of continuous testing of materials proposed for use in highway construction. By this means we are assured that no inferior products are inadvertently incorporated in the final product—the public highways.

The personnel engaged in preparing plans and specifications for highway construction have had an interesting and busy biennium. They probably have produced more required information than in any preceeding biennium. The error percentage has been remarkably low under the circumstances. Our field men and specialists from the Helena office are continually investigating conditions that will be encountered in road building and providing solutions for the alleviation of unsatisfactory conditions. Considerable time is devoted to studies of precipitation and runoff and the possible effects on highways. Aerial photography is being used extensively and has saved the Department thousands of dollars in time.

The biennium has witnessed continuous contact and cooperation between the Department and the various County Commissioners relative to the Secondary roads program. A few routes were added to the Secondary System during this period, and tabulations in this report indicate the extent to which this system has been improved.

Several persons within the Department are required to prepare proposals for highway construction contracts for which bids are opened at least once each month. During the biennium some two hundred projects involving bridges, roadways, and other facilities pertaining to highway construction were advertised and bid upon by contractors. The CONSTRUCTION REPORT shows the monetary value of the work.

Our Printing and Reproduction Section had a busier-than-usual biennium. The work involves the reproduction and printing of maps, plans, bid proposals, charts, forms, reports and other information published by the Department. This does not, of course, include any books, reports, or other work that must be done by printing firms.

The Planning Survey Division has continued to gather and publish statistics of great value to governmental agencies and many people in general. One major accomplishment handled by the Mapping and Photogrammetry sections was the photographing, from directly above, of each of the cities in the State. Such photographs will be available in the near future. The usual traffic counting operation has been expanded and continued. County maps and city plats have been kept up to date and are available in book form.

Joint studies of highway and street problems have been conducted in several communities. These are joint City, County and State studies of a planning nature with the aim of providing an integrated highway transportation plan, which will include City streets, County roads, and State highways in the area. It is expected that these studies will be of great benefit to the community as well as to the State. Most of these studies are eligible for Federal aid and it is used whenever available.

The five District Offices, and six other Division offices under their supervision, have performed commendable jobs. The members of the Legislature, the Executive officers, and the public in general are invited to call upon our District and Division offices at any time.

Our electronic data processing operations have been quite successful. A majority of the accounting work is done on these "electronic brains." Last year we traded in the older equipment and "went modern" for more speed, accuracy and detail at less money.

The Kelsh plotter, acquired in 1959, became so busy that another was acquired during the biennium. This machine obtains detailed data from aerial photographs that would take thousands of man-hours to acquire by hand methods.

As a whole, we have enjoyed a very successful biennium. Our high standing in western and national highway conferences is one of our proud achievements. The cooperation and enthusiasm of our personnel permits me to state, with pride, that I know we will do it bigger and better during the next two years.

Fred Quinnell, Jr.
State Highway Engineer

Starting a new bridge on Higgins Avenue, Missoula, across the Clark Fork.

SUMMARY OF SURFACE TYPES — FEDERAL AID PRIMARY SYSTEM

NET CONSTRUCTED LENGTH — BY COUNTIES

COUNTY	PRIMITIVE		UNIMPR.	GRADED & DRAINED		GRAVEL		BIT. SURF. TR.		ROAD MIX				PLANT MIX				BIT. CONCRETE		P. C. CONCRETE		BRICK	COMBIN.	TOTAL RURAL	TOTAL MUNIC.	GRAND TOTAL
	A		B	C		E		F		G-1 UNDER 7"		G-2 7" & OVER		G-1 UNDER 7"		G-2 7" & OVER		I		J		K	L			
	RURAL	MUNIC.	RURAL	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	MUNIC.	MUNIC.			
Beaverhead			0.123	16.012				14.634		2.494		62.210	0.033			60.605	1.693							156.078	1.726	157.804
Big Horn								7.455		8.477		59.516	1.477			64.303			0.034					139.751	1.511	141.262
Blaine								13.571		4.686		22.994	1.293			12.776								54.027	1.293	55.320
Broadwater								18.972	0.878	10.181		43.172	1.107			7.294								79.619	1.985	81.604
Carbon								12.924		9.713		60.609	3.134			5.773					0.432			89.019	3.566	92.585
Carter								10.845				16.441				24.719	1.049							52.005	1.049	53.054
Cascade						0.700		29.735	0.641	0.876	0.407	79.678	2.303	23.025	2.219	59.698	7.765	1.401	6.668		0.749			195.113	20.752	215.865
Chouteau								30.388	0.642	10.621		27.755				3.832								72.596	0.642	73.238
Custer								46.395	0.370	18.670	0.467	41.346	0.298			32.440				20.147	0.624			159.019	1.759	160.777
Daniels						4.885		42.270	0.278				1.181											47.155	1.459	48.614
Dawson								5.359		16.699		36.661	1.053			68.285	0.538				0.232			127.004	1.823	128.827
Deer Lodge			0.017					0.391		0.279		25.681	0.949			33.638	1.875			2.642				62.648	2.824	65.472
Fallon							0.144	49.328	1.237			22.576	0.832			11.275	1.148							83.179	3.351	86.530
Fergus								29.349		1.986		82.670	0.753			64.275	0.612			1.247	1.603			179.527	2.968	182.495
Flathead								6.422		17.480		133.315	1.069			54.054	2.611		0.336		0.792		0.005	211.271	4.813	216.084
Gallatin		1.250			0.568			30.675		22.348	0.207	32.576	1.143	8.049	0.791	58.936	0.872		2.164		0.362			152.584	7.357	159.941
Garfield						2.289		35.785		23.762		66.400	0.602			8.103								136.339	0.602	136.941
Glacier	1.267							38.646		18.978		88.384	0.719			15.910	1.039							163.205	1.758	164.963
Golden Valley								12.514	1.876	2.083		25.070												39.667	1.876	41.543
Granite				20.931		7.064		13.735		4.566	0.370	32.407	1.177			15.762								94.465	1.547	96.012
Hill								5.093		11.610		34.446	0.476			27.287	1.094				0.352			78.436	1.922	80.358
Jefferson								6.424		17.477		68.337	0.641			13.491	1.511							105.729	2.152	107.881
Judith Basin								3.967		5.818		48.052	0.222			3.343								61.180	0.222	61.402
Lake								15.513		12.850		44.688	0.931			40.109	0.776							113.160	1.707	114.867
Lewis & Clark								48.816	0.129	17.554	2.854	37.039		15.047		66.046	3.346		1.220		1.276	0.035		184.502	8.860	193.362
Liberty								0.983		4.017		19.728	0.859											24.728	0.859	25.587
Lincoln						0.033		54.397	0.073	13.462	0.424	87.361	2.536	11.310		5.320					0.186			171.883	3.219	175.102
Madison								8.810		73.462	0.662	67.711	3.081			5.167	1.576							155.150	5.319	160.469
McCone	11.420					38.783		6.701		27.363	0.404	56.429	1.173			8.325								149.021	1.577	150.598
Meagher								53.940		5.051	0.976	24.440				17.377					0.245			100.808	1.221	102.029
Mineral								3.715		5.040	0.347	23.856				42.250	2.943							74.861	3.290	78.151
Missoula				0.208				21.644	0.658	15.776	1.434	60.991	1.548			22.185	1.519		0.791		0.314	0.003	0.329	120.804	6.596	127.400
Musselshell								19.353	1.054	23.943		49.291	1.616			5.453	0.151		0.559				0.395	98.040	3.775	101.815
Park								14.701		16.806		42.092	1.723	1.523		51.870	0.392							126.992	2.115	129.107
Petroleum								7.983		11.215	0.715	17.823	0.182											37.021	0.897	37.918
Phillips								10.176	0.162	0.679		80.802	3.081			30.235					0.069			121.892	3.312	125.204
Pondera								12.062		21.782		18.293	0.903											52.137	0.903	53.040
Powder River								12.888	0.229			35.845	0.339			40.835								89.568	0.568	90.136
Powell				1.235				6.126		6.036		18.466				59.884	0.259							91.747	0.259	92.006
Prairie										5.525		18.075	1.002			4.137								27.737	1.002	28.739
Ravalli				16.380				29.553		3.207	0.320	37.432	1.769			14.498					0.018			101.070	2.107	103.177
Richland								57.603		19.984		41.072	2.740											118.659	2.740	121.399
Roosevelt								45.987	0.643	19.572	0.819	16.358	0.421			61.406	2.428				0.139			143.323	4.450	147.773
Rosebud						12.391		32.607	0.323	6.951		60.250				34.591	1.785							146.790	2.108	148.898
Sanders								45.501	0.247	14.756	0.103	57.839	0.649			27.533	0.401						0.454	145.629	1.854	147.483
Sheridan								22.992	0.271	10.393		42.636	2.010											76.021	2.281	78.302
Silver Bow								11.041	2.205	8.599		30.968	2.069			11.810		0.008	2.583	2.549	0.736		0.560	64.975	8.153	73.128
Stillwater								1.376				36.613	0.588											37.989	0.588	38.577
Sweet Grass								12.103		7.225	0.516	30.359				14.434	0.687							64.121	1.203	65.324
Teton								21.182	0.866	11.194	1.175	35.149	1.032			20.773								88.298	3.073	91.371
Toole								12.272		18.922	0.291	24.440				29.287	2.283							84.921	2.574	87.495
Treasure												28.805												28.805		28.805
Valley										3.559		38.516	0.497			51.757	1.405				0.150			93.832	2.052	95.884
Wheatland								10.110	0.001	16.975	0.060	32.896	1.000			18.247	0.025							78.228	1.086	79.314
Wibaux								24.383					0.773			14.381	0.273							38.764	1.046	39.810
Yellowstone								18.132		20.443		105.757	1.475			21.317	4.639		0.094	0.058	0.402		1.673	165.707	8.283	173.990
TOTALS	12.707	1.250	0.140	54.766	0.568	66.145	0.144	1107.527	12.783	633.145	13.551	2424.316	54.659	58.954	3.010	1363.746	40.915	1.409	15.769	26.643	8.181	0.038	[illegible]	5749.498	159.484	5908.982

SUMMARY OF SURFACE TYPES - FEDERAL AID SECONDARY SYSTEM

NET CONSTRUCTED LENGTH - BY COUNTIES

COUNTY	CODE	PRIMITIVE		UNIMPROVED		GRADED & DRAINED		GRAVEL		BIT. SURF. TR.		ROAD MIX				PLANT MIX			BIT. CONC.	P. C. CONCRETE		BRICK	COMBINATION		TOTAL SECONDARY RURAL	TOTAL SECONDARY MUNIC.	GRAND TOTAL
		A		B		C		E		F		G-1 UNDER 7"		G-2 7" & OVER		G-1 UNDER 7"	G-2 7" & OVER	G-2 7" & OVER	I	J		K	M				
		RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	MUNIC.	RURAL	RURAL	MUNIC.	MUNIC.	RURAL	MUNIC.	MUNIC.	RURAL	MUNIC.			
Beaverhead	1	2.500						105.518		0.140				8.794			15.894								132.846		132.846
Big Horn	2	8.600						76.555		6.859	0.649			30.452			21.721	0.700							146.197	1.349	147.546
Blaine	3	11.400		5.400		4.335	0.340	118.296		1.465				5.731	1.064		39.343								188.970	1.404	190.374
Broadwater	4	2.000		3.800		1.000		6.700		3.508		4.969		16.473			7.027								45.477		45.477
Carbon	5							6.208		14.621	1.092			22.538	0.470		21.929								65.396	1.562	66.958
Carter	6					17.496		128.358						0.173											146.027		146.027
Cascade	7	2.100		6.000		3.308		45.954	0.200	22.425	2.630	1.366	0.804	31.826	0.213		12.564								133.635	3.847	137.482
Chouteau	8	3.200		2.500		69.063		81.857	0.953	21.240		1.666	1.613	13.329	0.622		17.944								189.559	3.188	192.747
Custer	9	3.685						63.356	0.509								8.615								75.656	0.509	76.165
Daniels	10							35.373		13.316	0.289			9.152	0.441		8.976								66.717	0.730	67.447
Dawson	11			2.600		26.281		34.751	0.284	17.365	0.625				0.126		26.650	0.730			0.342				107.647	2.107	109.754
Deer Lodge	12							7.742		5.812				24.371			2.840								40.765		40.765
Fallon	13	1.300				16.600		76.767	0.509																94.667	0.509	95.176
Fergus	14			18.200		6.700		40.079	0.685	17.166				22.003	0.821		28.293	0.392							132.441	1.898	134.339
Flathead	15	0.700		2.500		10.000		95.884		3.515	1.232	0.272		11.293			25.977	0.724							150.141	1.956	152.097
Gallatin	16	0.500		5.500	0.400	6.586		47.117		14.908	0.425	17.676	0.350	58.347	1.290		8.650	0.782	0.300	0.193					159.477	3.547	163.024
Garfield	17			0.900		25.932		61.277	0.320																88.109	0.320	88.429
Glacier	18	5.200				3.791		77.126		8.409	0.400	6.562	0.442	12.436			41.902								155.426	0.842	156.268
Golden Valley	19					2.000		16.900	1.203																18.900	1.203	20.103
Granite	20							20.177																	20.177		20.177
Hill	21			0.983		41.708		82.382	0.066	33.792	0.334		0.213	14.178	0.006		15.647		0.593		0.094				188.690	1.306	189.996
Jefferson	22	2.400				1.290	0.245	34.792	0.300	11.416		0.037	0.322	9.671			9.391								73.003	0.867	73.870
Judith Basin	23							38.199	0.411	0.122	1.377			15.130	0.464										53.451	2.252	55.703
Lake	24							18.600			0.400	2.600	0.400	9.265	0.279		47.501								77.966	1.079	79.045
Lewis & Clark	25	1.300		0.923		20.566		42.251		49.114	1.080	11.205		14.166			8.898	0.674	0.152						148.438	1.906	150.344
Liberty	26	6.000		3.000		18.500		56.825		7.831		11.048					4.731	0.538							107.936	0.538	108.474
Lincoln	27			11.900		8.981		58.900									12.616								92.397		92.397
Madison	28					6.506		33.972		13.716				18.653											74.847		74.847
McCone	29					28.700		55.236									0.155	0.461							84.091	0.461	84.552
Meagher	30							25.431						2.118			20.340	0.498							47.889	0.498	48.387
Mineral	31			1.200				10.016	1.433				0.373	3.014	0.873		3.393								17.623	2.679	20.302
Missoula	32	1.250		1.248	0.429	3.000		22.019	0.321	13.763	0.486	19.079	2.333	23.737	1.381	12.858	20.916	0.357	0.236						137.870	5.543	143.413
Musselshell	33					4.000		44.804		2.000				0.681			1.647								53.132		53.132
Park	34					1.200		34.272						4.309			10.913								50.694		50.694
Petroleum	35			18.200		4.509		0.991						11.674	1.314		10.057								45.436	1.314	46.750
Phillips	36			2.500				60.036	0.525					17.945	0.315		21.330								101.811	0.840	102.651
Pondera	37	1.300				5.348		38.393		10.024				42.691	1.304		15.201	0.158							112.957	1.462	114.419
Powder River	38	0.900		1.900		18.869		73.416									9.121								104.206		104.206
Powell	39					5.096		51.092		5.011							11.752								72.951		72.951
Prairie	40							59.595		6.195		1.129		2.197											69.116		69.116
Ravalli	41			3.600				22.900		13.972	0.540	15.389		25.318	0.058		19.132	0.038							100.311	0.636	100.947
Richland	42	7.000	0.385	0.757		32.647		39.113	1.115		0.400			13.385	0.368		3.489								96.391	2.268	98.659
Roosevelt	43	3.900		0.056	0.396	14.764		49.340	0.502	43.130				30.157	0.640		12.703								154.050	1.538	155.588
Rosebud	44	0.200				2.300		62.103		8.131				30.589			9.047								112.372		112.372
Sanders	45			[illegible]		8.382		[illegible]		9.837				2.170			5.152								62.741		62.741
Sheridan	46					0.300		49.700		21.116				6.045	0.636		[illegible]								103.180	0.636	103.816
Silver Bow	47			4.200		1.000		15.386		1.468	1.658	4.542	0.534	1.692			6.989	0.870	0.655			0.253			35.277	3.970	39.247
Stillwater	48							27.435				2.379		43.863	0.496		14.934								88.811	0.496	89.307
Sweet Grass	49			6.880		19.000		33.854	0.180		0.220		0.211	15.357	0.269										75.091	0.880	75.971
Teton	50			7.000		16.447		34.471		[illegible]				38.560	1.217		13.078								110.609	1.217	111.826
Toole	51					20.477		83.210		3.489				9.964	0.679			0.548							117.162	1.227	118.389
Treasure	52							35.794	0.400	4.820				4.007	0.089										44.621	0.489	45.110
Valley	53					7.080		86.693	1.416	20.354		0.600		28.652	0.377		5.057	0.285	0.200						148.436	2.278	150.714
Wheatland	54					8.007		37.255	0.214	1.500															46.762	0.214	46.976
Wibaux	55	7.000		12.191		1.500		37.087	0.283																57.778	0.283	58.061
Yellowstone	56			14.774		15.900	0.130	41.183		11.146	0.303	1.455	1.345	17.273			21.590		1.000				0.407	1.598	123.728	4.376	128.104
TOTAL		71.935	0.385	148.132	1.225	520.275	0.715	2636.736	10.829	477.614	14.590	105.174	[illegible]	724.664	[illegible]	12.858	647.866	7.085	3.306	0.193	0.436	0.253	0.407	1.598	5350.054	66.024	5416.078

SUMMARY OF SURFACE TYPES AND MILEAGE

TABLE "A" — SUMMARY OF SURFACE TYPES — ALL SYSTEMS — MILES

	Unimproved	Graded	Gravel	Light Oil Mix	Bituminous Road Mix	Bituminous Plant Mix	Portland Cement	Other	Total
State Highway System									
Primary (1)	14	55	66	1,120	3,125	1,473	35	21	5,909
Secondary	226	521	2,648	492	855	668	1	5	5,416
Other			14		5	2	1	1	23
Local Systems									
Rural	31,604	12,522	17,413	256	626		7		62,428
Municipal		227	440	240	531		20	75	1,533
TOTALS	31,844	13,325	20,581	2,108	5,142	2,143	64	102	75,309

TABLE "B"—SUMMARY OF ROUTES BY LOCATION—MILES

STATE HIGHWAY SYSTEM

	Municipal	County	National Forest	Indian Reserve	Military Reserve	State Forest	National Park	Game Refuge	Total
Primary (1)	160	4,597	455	598	9	43	27	28	5,917 (2)
Secondary	66	4,495	336	479	1	23	(3)	30	5,430 (4)
Other	4	16	3						23
Grand Total									11,370
Less Coincident Mileage									22
Net Total									11,348

TABLE "C"—INTERSTATE HIGHWAY

Location—U. S. 10 from Lookout Pass on Idaho State Line via Missoula, Butte, Billings, Glendive to North Dakota State Line near Wibaux

U. S. 87 from Billings via Hardin to Wyoming State Line south of Wyola

U. S. 91 from Monida Pass on Idaho State Line via Dillon, Butte, Helena, Great Falls, Shelby to Canadian Border at Sweet Grass

Length	
Present travelled way	1234 miles
Estimated final length	1180 miles
Present Surface Types	
Bituminous Surface Treatment	9 miles
Bituminous Road Mix	1 mile
Bituminous Plant Mix	235 miles
Portland Cement Concrete	20 miles
Lanes	
Four Lane Highway	40 miles
Two Lane Highway	195 miles

TABLE "D"—NATIONAL FOREST HIGHWAY SYSTEM

Class 1	676 miles
Class 2	257 miles
Class 3	279 miles
Total	1212 miles

Unimproved	19 miles
Graded	72 miles
Graveled	63 miles
Oiled	207 miles
Bitum. Road Mix	266 miles
Bitum Plant Mix	306 miles
Other systems	279 miles
Total	1212 miles

Constructed by State	219 miles
Constructed by B.P.R.(5)	646 miles
Constructed by others	6 miles
Total	1212 miles

Class 1 mileage is entirely on State primary System

Notes:

1. Includes Interstate
2. 5 miles municipal also in Indian Reserve
   3 miles municipal also shown in National Forest
3. 0.2 miles in National Monument
4. 14 miles coincident mileage as in (2)
5. B.P.R.—Bureau of Public Roads

Montana law requires that State highway construction funds be divided among the different systems and among the financial districts, counties and urban cities on the basis of prescribed formulas. The tables on this page show the distribution percentages for the fiscal years ending June 30, 1962 and June 30, 1963:

INTERSTATE SYSTEM

Financial District	Counties	Percentages for FY 1961	Percentages for FY 1962-63
2	Toole	2.5441	2.9878
4	Dawson, Prairie, Wibaux	4.9933	5.5728
6	Cascade, Pondera, Teton	7.8042	8.4550
7	Broadwater, Jefferson, Lewis & Clark	16.3766	17.3726
8	Granite, Mineral, Missoula, Powell	21.5570	20.4819
9	Beaverhead, Deer Lodge, Madison, Silver Bow	11.6567	11.9026
10	Gallatin, Park, Sweet Grass	10.6986	11.7633
11	Big Horn, Stillwater, Treasure, Yellowstone	18.6743	16.9906
12	Custer, Rosebud	5.6952	4.4734
	TOTAL	100.0000	100.0000

Allocation percentages have been adjusted in accordance with latest needs estimate as furnished to Congress under Section 104(b) 5 of Title 23, U. S. Code—Highways. The Interstate System does not enter Financial Districts 1, 3 and 5 and some counties in other Districts. Percentages will remain the same until the next "needs" estimate.

PRIMARY SYSTEM

(Based on deficient highway mileage)

Financial District	Counties	Percentages for FY 1962	Percentages for FY 1963
1	Flathead, Lincoln, Lake	10.5230	10.5447
2	Blaine, Glacier, Hill, Liberty, Toole	6.6854	7.0098
3	Daniels, Phillips, Roosevelt, Sheridan, Valley	10.3477	10.0536
4	Dawson, McCone, Prairie, Richland, Wibaux	9.8731	9.5144
5	Fergus, Garfield, Petroleum	7.0011	6.0413
6	Cascade, Judith Basin, Pondera, Teton	8.7069	9.0948
7	Broadwater, Jefferson, Lewis & Clark	4.2372	4.6271
8	Granite, Mineral, Missoula, Powell, Ravalli, Sanders	10.8600	11.7697
9	Beaverhead, Deer Lodge, Madison, Silver Bow	6.2700	4.6242
10	Gallatin, Meagher, Park, Sweet Grass, Wheatland	8.8369	9.2942
11	Big Horn, Carbon, Golden Valley, Musselshell, Stillwater, Treasure, Yellowstone	7.9364	8.4933
12	Carter, Custer, Fallon, Powder River, Rosebud	8.7223	8.9329
	TOTAL	100.0000	100.0000

Deficient mileage figures shown exclude Primary System mileage located on Interstate System.

URBAN SYSTEM

(Based on Urban population of 5,000 or more)

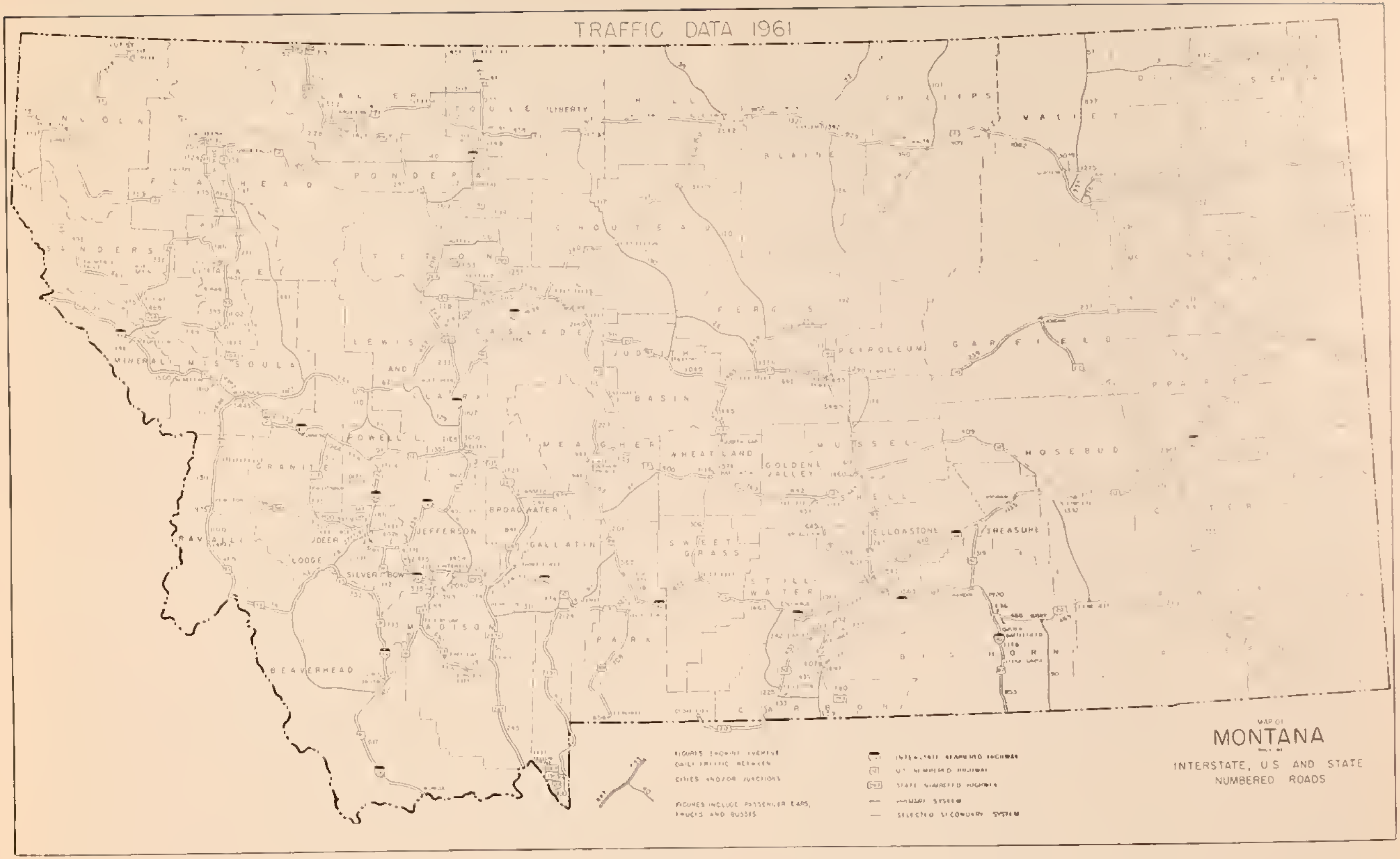
Urban City	FY 1961	FY 1963	Urban City	FY 1961	FY 1962-63
Anaconda	4.4968	4.1696	Havre and environs	3.9889	4.1191
Billings	19.5842	18.2819	Helena	7.5325	6.9968
Bozeman	5.0099	4.6217	Kalispell	3.7419	3.5114
Butte and environs	10.3759	14.3544	Lewistown	2.7565	2.5625
Glasgow	2.4079	2.2132	Livingston	3.0365	2.8465
Glendive	2.6376	2.4415	Miles City	3.6231	3.3432
Great Falls	20.7076	19.1487	Missoula and environs	10.1007	11.3895
			TOTAL	100.0000	100.0000

Population reported in Census for fringe areas of Butte, Havre and Missoula has also been included as urban population in accordance with requirements of State law. The percentages will remain as in 62-63 until 1970.

SECONDARY SYSTEM

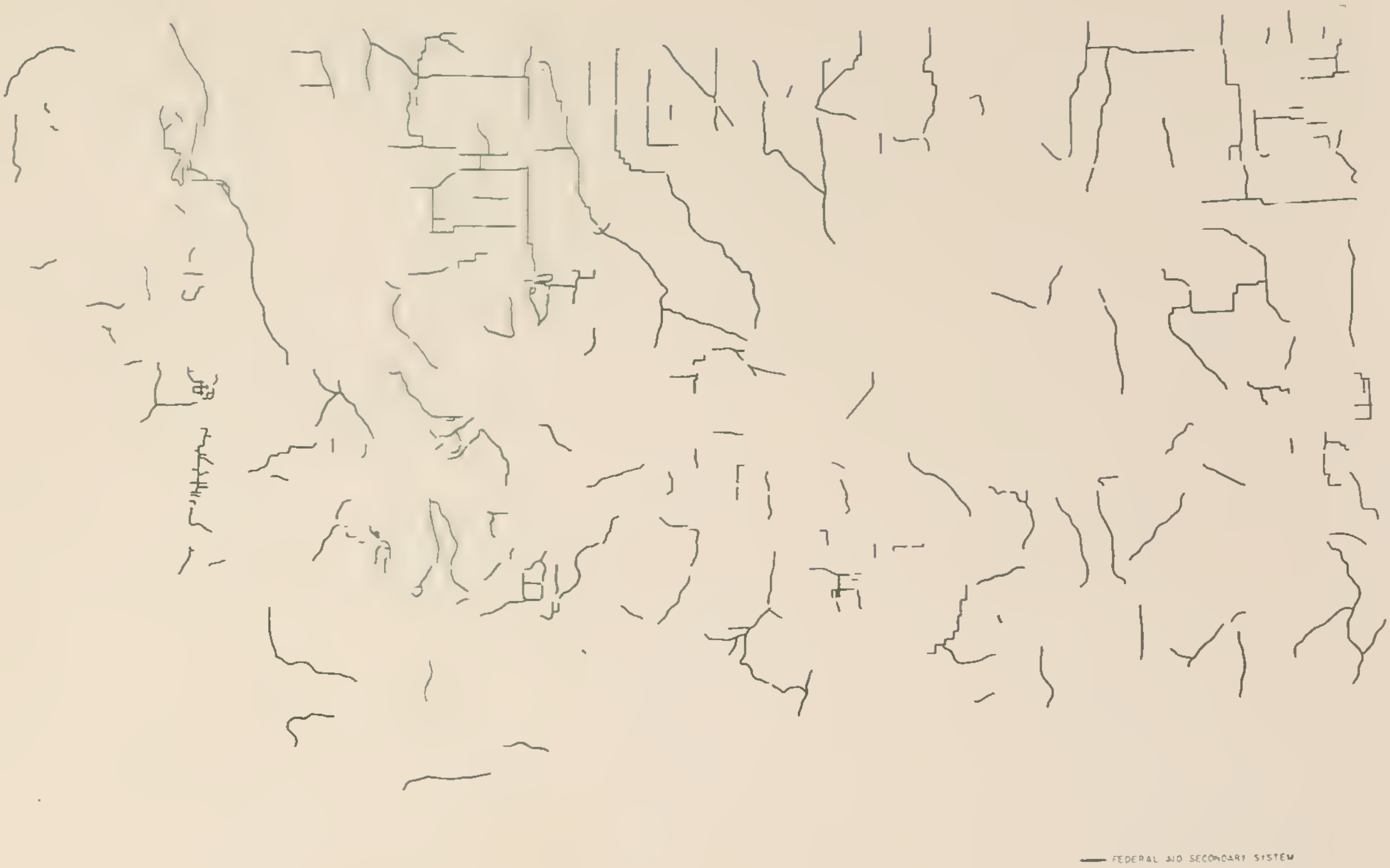
Based on land area, rural road mileage, rural population, and rural land value.

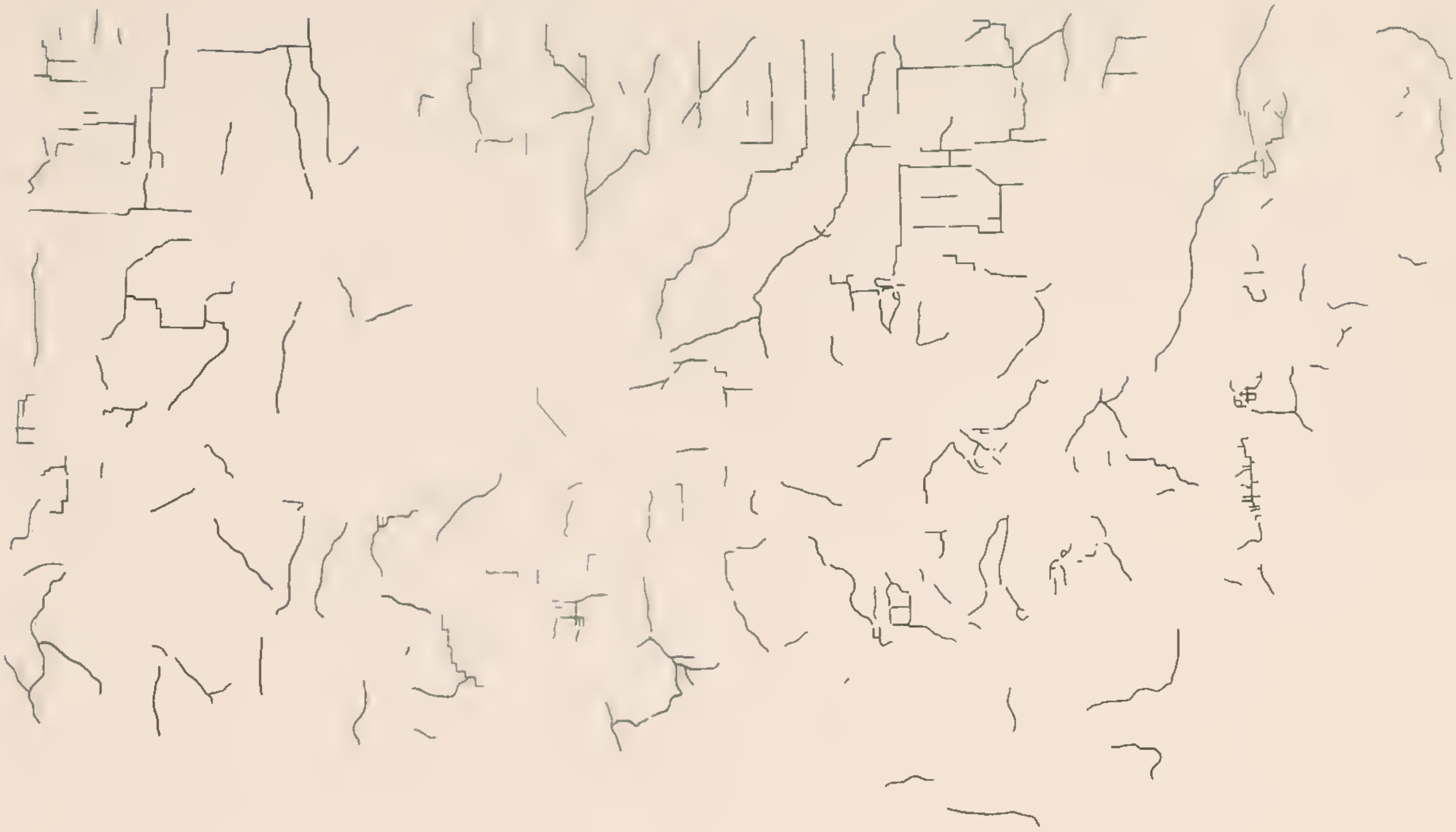
County and Financial District	Percentages for FY 1962	Percentages for FY 1963
Flathead	3.4978	3.4974
Lake	1.9375	1.9425
Lincoln	2.2792	2.2846
Financial District No. 1	7.7145	7.7245
Blaine	2.8236	2.8107
Glacier	1.9782	1.9825
Hill	2.7593	2.7488
Liberty	1.3382	1.3321
Toole	2.0532	2.0266
Financial District No. 2	10.9525	10.9007
Daniels	1.4013	1.4024
Phillips	2.6446	2.6282
Roosevelt	2.1681	2.2075
Sheridan	1.8152	1.8137
Valley	2.9949	2.9922
Financial District No. 3	11.0241	11.0440
Dawson	1.6476	1.6280
McCone	1.7443	1.7388
Prairie	0.9323	0.9310
Richland	1.9086	1.9034
Wibaux	0.7423	0.7364
Financial District No. 4	6.9751	6.9376
Fergus	2.9053	2.9293
Garfield	1.7535	1.7550
Petroleum	0.7428	0.7435
Financial District No. 5	5.4016	5.4278
Cascade	3.0907	3.1693
Chouteau	3.6834	3.6772
Judith Basin	1.4992	1.5467
Pondera	2.3468	2.3230
Teton	2.2660	2.2354
Financial District No. 6	12.8861	12.9316
Broadwater	0.9315	0.9252
Jefferson	0.9936	0.9912
Lewis & Clark	1.8619	1.8719
Financial District No. 7	3.7870	3.7883
Granite	0.8809	0.8858
Mineral	0.6574	0.6417
Missoula	1.9135	1.9194
Powell	1.4907	1.5080
Ravalli	1.9209	1.9219
Sanders	1.6168	1.6223
Financial District No. 8	8.4802	8.4991
Beaverhead	2.4505	2.4712
Deer Lodge	0.8289	0.8215
Madison	1.7579	1.7591
Silver Bow	0.6777	0.6758
Financial District No. 9	5.7150	5.7276
Gallatin	2.4347	2.4432
Meagher	1.1307	1.1263
Park	1.3956	1.4977
Sweet Grass	1.1045	1.0997
Wheatland	0.9109	0.9083
Financial District No. 10	6.9764	7.0752
Big Horn	2.5765	2.5682
Carbon	1.7716	1.7540
Golden Valley	0.7086	0.7104
Musselshell	1.2268	1.2221
Stillwater	1.4653	1.4586
Treasure	0.5536	0.5519
Yellowstone	3.6920	3.6213
Financial District No. 11	11.9944	11.8865
Carter	1.4349	1.4315
Custer	1.6611	1.6647
Fallon	1.1752	1.1571
Powder River	1.4972	1.4646
Rosebud	2.3247	2.3192
Financial District No. 12	8.0931	8.0371
State Total	100.0000	100.0000

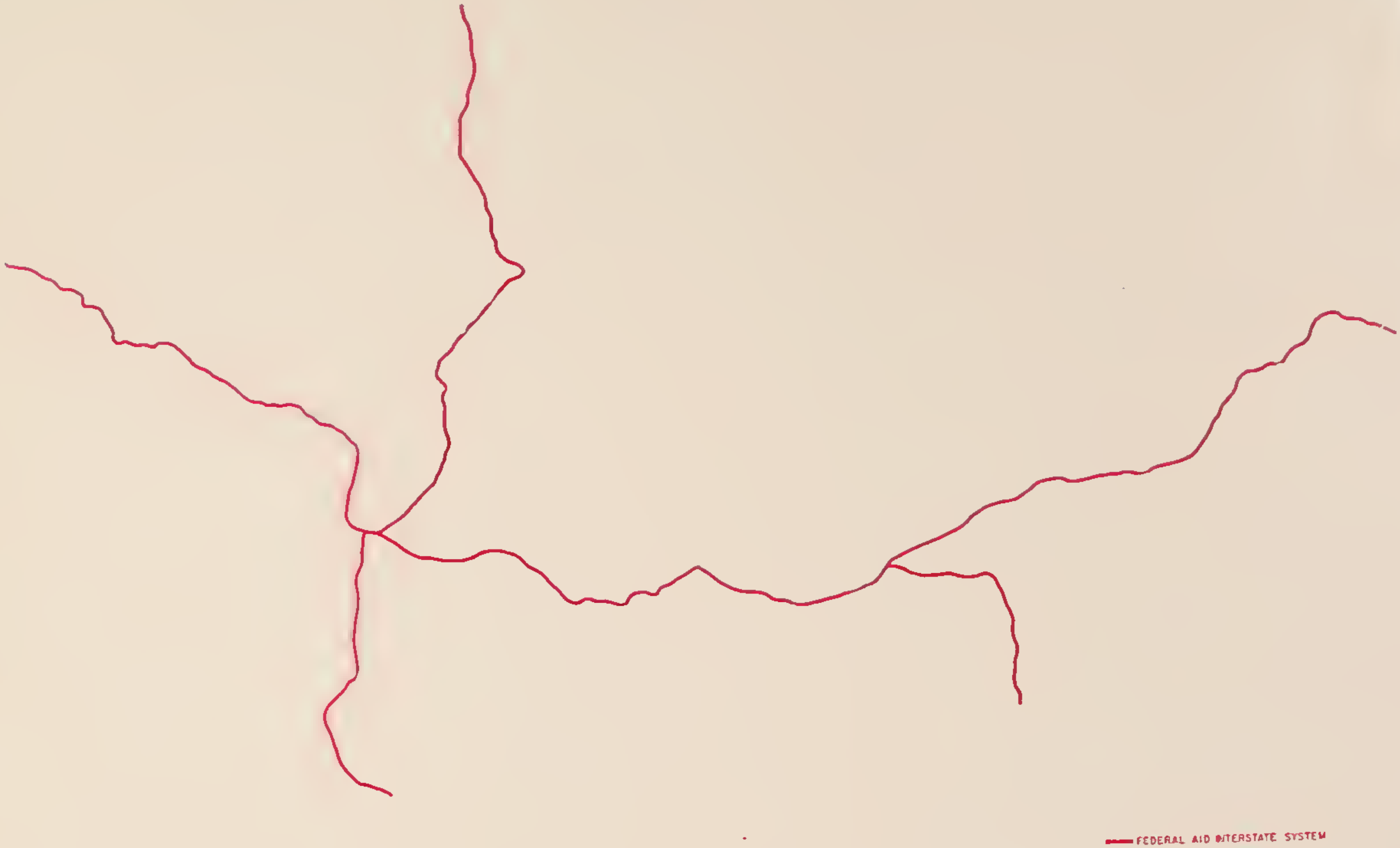

TRAFFIC DATA 1961
LINCOLN
GLACIER
TOOLE
LIBERTY
HILL
BLAINE
PHILLIPS
VALLEY
DANIELS
SHERIDAN
FLATHEAD
PONDERA
CHOUTEAU
SANDERS
LAKE
TETON
CASCADE
FERGUS
PETROLEUM
GARFIELD
MINERAL
MISSOULA
LEWIS AND CLARK
JUDITH BASIN
POWELL
MEAGHER
WHEATLAND
GOLDEN VALLEY
MUSSELSHELL
ROSEBUD
GRANITE
BROADWATER
JEFFERSON
DEER LODGE
SILVER BOW
RAVALLI
GALLATIN
SWEET GRASS
STILLWATER
YELLOWSTONE
TREASURE
MADISON
PARK
BEAVERHEAD
CARBON
BIG HORN
CUSTER
PRAIRIE
MAP OF
MONTANA
SHOWING
INTERSTATE, U.S AND STATE
NUMBERED ROADS
FIGURES SHOWING AVERAGE DAILY TRAFFIC BETWEEN CITIES AND/OR JUNCTIONS
FIGURES INCLUDE PASSENGER CARS, TRUCKS AND BUSSES
INTERSTATE NUMBERED HIGHWAY
U.S. NUMBERED HIGHWAY
STATE NUMBERED HIGHWAY
PRIMARY SYSTEM
SELECTED SECONDARY SYSTEM

U. S. Highway No. 2 and Great Northern Railway on Middle Fork of Flathead River East of West Glacier.

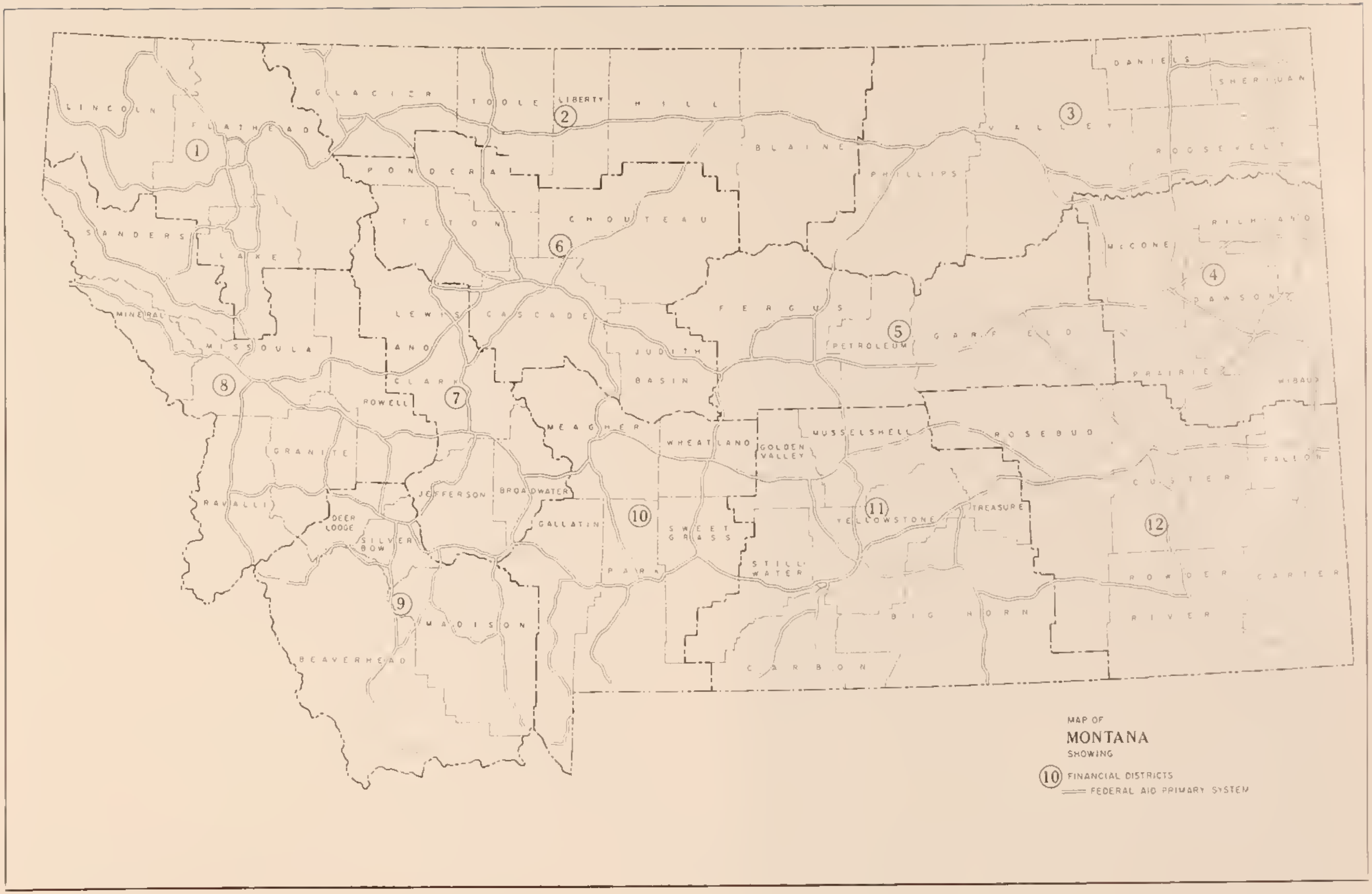
Interstate 15 enters Little Prickly Pear Creek Canyon north of Helena.


FEDERAL AID SECONDARY SYSTEM



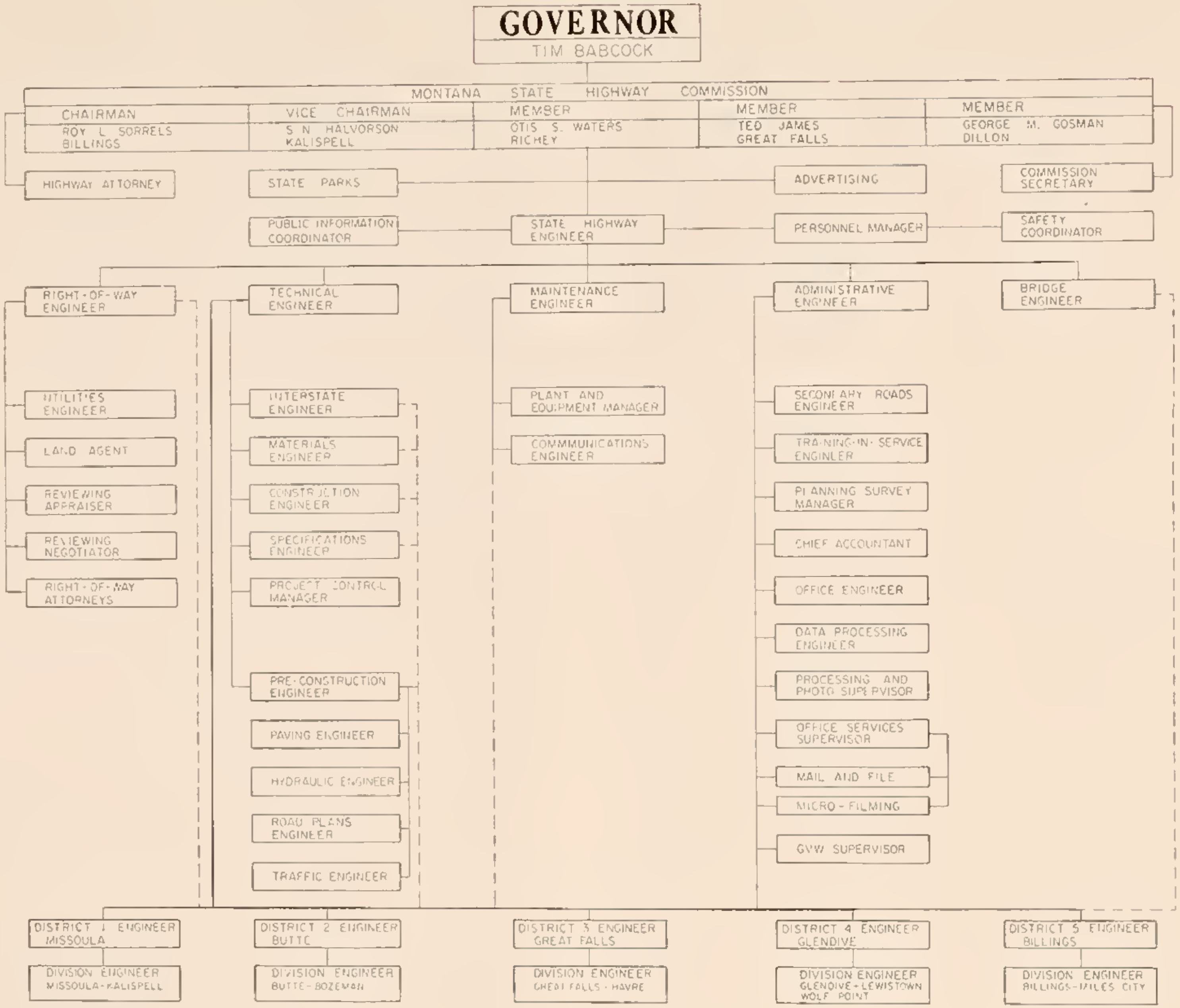

FEDERAL AID INTERSTATE SYSTEM

FEDERAL AID INTERSTATE SYSTEM



MAP OF
MONTANA
SHOWING
⑩ FINANCIAL DISTRICTS
FEDERAL AID PRIMARY SYSTEM

ORGANIZATION CHART
STATE HIGHWAY COMMISSION OF MONTANA



PERSONNEL REPORT

The major functions, duties, and responsibilities of the Personnel Office are:

(a) To screen applicants as to their basic qualifications and their application to such vocations as engineering and technical professions, administrative operations and professional trades.

The information is subsequently filed, categorically, for the future reference of division and section supervisors who are responsible for the final selection and placement. This procedure is calculated to save the supervisor valuable time in investigation and considerable unnecessary interviewing.

(b) To actively recruit college graduates with degrees in civil engineering.

Our records indicate that we are short of employees in this category.

(c) To maintain complete personal histories on all employees in classified service as well as time and attendance records and performance ratings.

(d) To insure that all prescribed regulations, statutory laws and Commission policies are strictly complied with where they concern personnel procedures.

This encompasses such matters as veterans' preference, resident requirements, proper age limits, employee conduct, and other prescribed criteria.

(e) To compile statistical reports with subsequent analyses of wage structures, retention factors, cost-of-living index, organizational changes, advancements and turnover.

These analyses are based almost entirely on comparative studies conducted in other states, supply and demand, and factors of money, manpower, and management.

This report includes a statistical chart, on the next page, covering personnel classifications, wage rates, personnel changes, and growth of the Department due to the increased demands imposed by the Interstate Highway Program and other construction projects. The wage schedule for maintenance is covered in the Highway Maintenance Report on Page 39.

The program, which was established a few years ago, granting service pins and certificates for terms of employment of five years and multiples thereof has been continued as it has proved to be very successful.

The American Association of State Highway Officials has a similar recognition plan with the exception that the prerequisites are twenty-five years service and status of professional engineer in the category of middle management and above. The Montana Highway Department has sixty-one recipients of this meritorious distinction, forty-four of whom are actively employed at the end of the biennium.

The Training-in-Service program was expanded, during the fall and winter of 1961-62, to include all non-engineering positions.

The construction, administration, grading and analysis of examinations continued to be the major activity of this division. Approximately 150 examinations, in some thirty work areas, were processed during this period.

Some schools were conducted on a voluntary, off-duty, basis. The following tabulation provides an idea of what was done:

Basic Engineering	11 schools conducted
Advanced Engineering	6 schools conducted
Accounting	1 school conducted
Portland Cement Construction	17 two-hour evening lectures
Bituminous Paving	12 six-hour lectures
Miscellaneous Subjects	5 two-day seminars

There were a few other seminars, on miscellaneous subjects, conducted as circumstances permitted.

During February and March, 1962, a Front-Line Supervisor Training Course was held in each District. A total of 160 Supervisors of P-2 and P-3 grade attended the 12 hour session.

During the fall of 1961, the Training-in-Service Division conducted recruitment interviews at five major colleges in the Northwest. Although well received, the competition for Civil Engineering graduates was unusually severe. One man accepted employment and is still with our Department.

An area of training, in which major revision was made, was in the SP-2 to P-1 category. The men in this category were removed from the accelerated increment program and all placed on normal employment. The effective closure date was in 1962. The examination schedule was then confined to change-in-grade only.

The Interstate crosses the Yellowstone River at Livingston (looking west).

SALARY SCHEDULE

Numerical Classification Designation	Salary Range				Number in Classification		Increase or Decrease	
	1960		1962					
	Min.	Max.	Min.	Max.	1960	1962		
P-9	$1,050	$1,260	$1,100	$1,320	1	1		
P-8	830	1,000	910	1,100	4	4		
P-7	755	910	830	1,000	3	8	5	
P-6	660	790	720	870	17	12		5
P-5	630	755	690	830	16	17	1	
P-4	575	690	630	755	15	13		2
P-3	550	660	600	720	15	19	4	
P-2	500	600	550	660	101	115	14	
P-1	455	550	500	600	103	121	18	
SP-6	500	600	550	660	5	6	1	
SP-5	475	575	525	630	3	3		
SP-4	415	500	455	550	34	36	2	
*SP-3	375	455	415	500	196	238	42	
*SP-2	330	395	360	435	184	161		23
SP-1	315	Temp.	345	Temp.	138	247	109	
NE-11	630	755	690	830	6	13	7	
NE-10	550	660	600	720	6	11	5	
NE-9	500	600	550	660	15	11		4
NE-8	455	550	500	600	30	40	10	
NE-7	415	500	455	550	23	29	6	
NE-6	375	455	415	500	27	24		3
NE-5	345	415	375	455	37	46	9	
NE-4	315	375	345	415	38	34		4
NE-3	285	345	315	375	33	48	15	
NE-2	255	315	285	345	25	28	3	
NE-1	235	285	255	315	18	22	4	

* The gain of SP-3 and loss of SP-2 during this period indicates the need in basic technical employees. This demand has been met, reasonably well, through the training-in-service program.

The increase of employees in the SP-1 classification is caused by temporary employees working on construction crews for the summer construction period.

HIGHWAY CONSTRUCTION REPORT

The Construction Engineer and the Bridge Engineer are charged with the general overall responsibility for the construction of roadway and bridge projects. Their contact with construction engineering forces is through the District Engineers.

The Construction Engineer is called upon for advice during various phases of project planning prior to construction. He and his staff review the proposed work for each proposed contract prior to bid opening date. The Bridge Engineer and his staff prepare and check all plans and specifications for bridge and structure projects and are called upon for advice during the various phases of planning.

The progress estimates for payment of contract work are processed and reviewed by these offices. They also review all sub-contracts and modifications of contracts after execution. They must review and weigh all circumstances and conditions concerned with overruns of contract time and submit their recommendations to the State Highway Commission as pertains to possible liquidated damages due to delay in completion time. They make frequent field inspection trips to obtain assurance that projects are being built in accordance with plans and specifications and to advise District Engineers and field assistants relative to their problems. They and their staffs evaluate and recommend new materials, equipment and procedures.

All contracts let in recent years, wherein Federal-aid is involved, include a provision stipulating job classification and minimum wages for all of a contractor's employees. The Construction Engineer is charged with the enforcement of this provision.

The Construction Engineer and Bridge Engineer are members of a Prequalification Board, established many years ago, to review, consider and rate all prospective bidders as to their ability to bid upon, accept project awards and construct contemplated projects. The State Highway Engineer, the Office Engineer, the Specifications Engineer and the Chief Accountant are the other members.

The staffs of these two Engineers, Construction and Bridge, acting through delegated field forces, have completed a tremendous construction program during this biennium. A good, substantial start has been made on Montana's portion of the National System of Interstate and Defense highways.

The Bridge Division has developed standard drawings for prestressed concrete piles which will be used when foundation conditions are such that timber piles cannot be driven satisfactorily and steel piles will not provide the necessary bearing. Concrete piles also will be utilized in steel and concrete structures where piles are exposed to view.

Prestressed concrete beam design has been developed to produce beams up to 100 feet in length. Prestressed beams were limited to 70 feet on the Interstate System and 75 feet on the Secondary System until a recent date.

The Highway Department is constructing continuous concrete slabs on simple spans of lengths up to 100 feet, thus eliminating, to some extent, the material formerly used in expansion and contraction joints.

The following tabulation shows the length and probable cost of the various types of bridges let to contract during the biennium. Steel and concrete are the predominant materials.

Type of Bridge	**Length-Feet**	**Cost**
Riveted Plate Girder	2637	$1,501,682
Rolled Steel Beam Girder	2977	1,130,809
Precast Prestressed Concrete Girder	13381	4,705,117
Treated Timber Stringer	363	80,131

Minor structures, less than twenty feet in roadway length, built for machinery passes and similar purposes, cost a total of approximately $211,227.

The later roadway pavement design on the Interstate System provides for cement stabilized gravel or crushed stone as a base for the top riding course. This treatment will add considerable strength where heavy loads are expected.

The Construction Division sent two men to District offices in the winter of 1962 to conduct seminars and general discussions of construction specifications and procedures. This proved to be very beneficial to both field and office personnel. Also, during the winters of 1961 and 1962, two men went to Division offices and discussed and explained earthwork staking procedures that tie into computation of earthwork quantities by electronic computers. These machines have computed the normal earthwork quantities on a construction job at rates in excess of twenty miles in one hour; twenty miles by hand would take two men many days.

The Bureau of Public Roads participates with the railroad companies in the cost of installing at-grade railroad crossings, signs and signals. There is no installation cost to the State. Ten of these were installed during the biennium. They are located at or near:

Rudyard
Crow Agency
Glendive
Bainville
Glasgow
Hamilton
Box Elder
Paisley
Nashua
Yegen Beet Dump

The Commission was successful again in securing some Federal Lands Funds from the Commissioner of Public Roads. The amount was $100,000 and it will be applied to the access road to Yellowtail Dam southeast of Billings. The Bureau of Reclamation also contributed $335,000. These are over and above usual Federal-aid funds for highway construction.

Bids were opened, and awards subsequently made, on projects totaling a value of $72,503,497 during the biennium. The work involved is reflected in the following tabulation:

Highway and bridge construction	$71,357,104
Maintenance gravel stockpiles	880,654
Maintenance buildings	102,650
Maintenance pipe line	12,293
Maintenance seal coat	68,437
Right-of-Way fences (Miscellaneous)	57,576

Some work was let to contract and financed by agencies other than the Highway Department:

State Park Facilities	$ 2,272
Defense Access Road	19,071
Bridge Repair	3,440

All contracts awarded were not completed during the biennium. There were 137 projects, involving highway and bridge construction, let to contract during the biennium, which were not completed by June 30,

1962. The contract awards for this work amounted to $58,970,064. The award value is divided as follows: Interstate—$37,797,862; Primary—$12,129,937; Secondary—$9,042,265.

Highway and bridge construction projects completed during the biennium totaled a value of $62,769,282; this does not include right-of-way and engineering costs. These are listed on Pages 23, 24 and 25. Some of these contracts were awarded prior to and some during the biennium. The mileage and construction cost of various types of work is shown below for each of the three major highway systems.

INTERSTATE SYSTEM

Grade, pavement and major bridges		81.5	miles	$21,457,061
Major Bridges	(A)	13,962	feet	5,596,529
Right-of-Way fence	(A)			355,295
Pavement only		17.1	miles	453,789
Traffic Control, signs, etc.				275,732
Seed and Fertilizer				116,751
Weigh Station				17,551
Railroad Relocation		0.8	miles	4,560
				$28,277,258

PRIMARY SYSTEM

Grade, pavement, and major bridges	(B)	196.7	miles	$10,926,362
Major Bridges		3,996	feet	2,346,440
Base and pavement		171.7	miles	4,242,223
Grade	(A)	17.4	miles	508,100
Grade and Gravel		13.1	miles	515,838
Gravel	(A)	8.3	miles	82,115
Guard Rail	(A)	36,000	feet	81,144
Traffic Control, signs, etc.				29,932
Seal Coat		27.6	miles	49,697
				$18,781,851

SECONDARY SYSTEM

Grade, pavement and major bridges	(B)	27.3	miles	$ 1,219,917
Grade and pavement	(B)	168.3	miles	8,362,900
Major Bridges	(A)	1,576	feet	628,869
Gravel and Pavement		114.9	miles	2,462,282
Grade and Structures		1.2	miles	88,792
Grade and Gravel		86.1	miles	2,346,632
Grade, gravel and structures		17.7	miles	484,967
Pavement	(A)	10.4	miles	115,804
				$15,710,163

(A) Contracts let for that work only

(B) Includes light surface oiling
Incidental minor work is included

Mileage actually constructed, and constituting an up-to-date travelled-way is shown below:

	Interstate	Primary	Secondary	Total
Grade and drain	81.5	227.1	300.6	609.2
Pavement*	98.6	368.4	320.9	787.9

There is an overlap in the two totals.

* The predominant type of pavement is bituminous plant mix.

The Construction Division, and field engineers under its general direction, performed other work and constructed other facilities which were not public highways. All this is shown on Pages 26 and 27.

TABLE "R-O-W" shows some fencing projects wherein the Department built fences for other people as right-of-way considerations.

TABLE "MW-A" shows some projects concerned with various types of work. These were financed by agencies other than the Commission.

TABLE "CM-A" lists gravel stockpiles established at various locations for highway maintenance. TABLE "CM-B" lists some miscellaneous buildings built for the Maintenance Division. These were financed by the Commission without Federal funds.

There is shown, on Page 26, a tabulation of projects constructed by the Bureau of Public Roads; these are included because they are part of the State Highway System.

The columns in the tabulations on Pages 23 to 25 are numbered and some data therein is abbreviated. Cost data is shown to the nearest dollar. Some of the figures in Column 8 are estimated.

Column 0 shows county, or counties, in which the project is constructed.

Column 1 carries an identification number which is used on the map on Page 29, to show the location of the project. Sometimes several contracts will be shown under one number.

Column 2 shows the various project numbers which are used in all construction and accounting records.

Column 3 gives the length of the project. If it is road work, the length is in miles to three decimal points; if a bridge, the length is in feet. If bridges are included in roadway work then their separate length is not shown.

Column 4 shows the type or kind of work let to contract. The work descriptions have been abbreviated as explained below:

GD—Grade and Drain
GS—Gravel or Graveled
MB—Major Bridges, Underpasses, Overpasses, etc.
TT—Treated Timber Bridges
CSB—Cement Stabilized Base
FC—Fence
TC—Traffic Control
SN—Signs
SI—Signals
BST—Light Bituminous Surface Treatment
BRM—Bituminous Road Mix
BPM—Bituminous Plant Mix
BSC—Bituminous Seal Coat
PCP—Portland Cement Concrete Pavement
SF—Seed and Fertilizer
SL—Signals and Lights
GR—Guard Rail

All bituminous treatments or mixes are a combination of bitumen (road oil) and gravel or crushed rock. "MB", when used alone, means steel and concrete. Major timber bridges are symbolized by "MB(TT)".

Column 5 shows the date of letting—month and year.
Column 6 shows the amount of the contract, as awarded.
Column 7 shows the date of physical completion of the project.
Column 8 shows the final cost of the construction work as paid to the contractor.

The map on Page 29 shows the location of all highway construction projects completed during the biennium.

PROJECTS ON INTERSTATE SYSTEM

0	1	2	3	4	5	6	7	8
County	Ident. Number	Project Number	Project Length	Type of Work	Date of Letting	Amount of Contract	Date Completed	Final Contract Amount
Park	3	I 117(10) U-2	4.029	GD-GS-BPM-BSC-FC-GR	4-58	$ 2,608,840	9-60	$ 2,539,147
Big Horn	6	IN 90-9(5)498 U-1 (a)	11.594	GD-GS-BPM-BSC-FC-GR	6-58	1,685,369	9-60	1,890,226
Mineral	1	I 90-1 (4)60 U-1	4.991	GD-GS-BPM-BSC-FC-GR	7-58	1,042,632	9-60	988,481
Granite & Powell	2	I 90-3(3)157 U-1	9.623	GD-GS-BPM-BSC-FC-GR	7-58	2,456,635	10-60	2,640,690
Park	3	I 90-7(5)339		SN	8-58	13,048	9-60	16,211
Toole	13	I-IG-ING 15-8(3)351	5.623	MB-GD-GS-BPM-BSC-FC-GR	9-58	1,793,115	9-60	1,840,147
Mineral	1	I 90-1(5)46	1422'	MB	9-58	846,797	9-60	839,548
Silver Bow	10	I-ING 15-2(8)118	4.245	MB-GD-GS-BPM-BSC-FC-GR	4-59	1,360,741	7-61	1,350,782
Dawson	8	I 94-6(2)216	4.184	GD-GS-BPM-BSC-FC-GR	4-59	762,435	7-61	751,303
Lewis & Clark	11	I-IG-ING 15-4(4)184 U-1	1607'	MB	6-59	509,390	7-61	506,228
Cascade	12	I 15-5(9)275 U-1	8.337	GD-GS-BPM-BSC-GR	7-59	2,629,105	8-61	2,491,448
Cascade	12	I 15-5(9)275 U-2	469'	MB	7-59	231,508	7-60	224,316
Cascade	12	I 15-5(9)275 U-3		FC	7-59	30,093	8-61	32,439
Mineral	1	I 90-1(6)43 U-2	474'	MB	7-59	144,403	9-60	141,680
Toole	13	I-IG 15-8(6)379 U-1 (1)	4.144	MB-GD-GS-BPM-BSC-GR	10-59	720,660	9-61	708,265
Toole	13	I-IG 15-8(6)379 U-2		FC	10-59	38,746	8-61	40,275
(2)	2	I 90-1(7)60 & I 90-3(5)157		SN	10-59	42,658	1-61	42,652
Yellowstone	5	I 90-8(8)438 U-1	6.423	GD-GS-BPM-BSC-GR-MB	10-59	1,566,610	8-61	1,497,475
Yellowstone	5	I 90-8(8)438 U-2		FC	10-59	33,140	11-61	37,198
Big Horn	6	I 90-9(10)498		SN	10-59	52,848	7-60	53,013
Park	3	I 90-7(4)330	1461'	MB	11-59	642,857	10-61	635,295
Mineral	1	I 90-1(6)43 U-3		FC	1-60	67,742	10-61	64,557
Custer	7	I 94-4(3)134	869'	MB	1-60	324,467	6-61	319,438
Custer	7	I 94-4(5)127 U-1 (3)	8.495	MB-GD-GS-PCP-BPM-BSC-GR	1-60	2,623,382	11-61	2,547,491
Custer	7	I 94-4(5)127 U-2		FC	1-60	35,986	11-61	45,617
Beaverhead	9	I-IG 15-1(9)0	17.079	BPM-BSC	2-60	484,014	9-60	453,789
Silver Bow	10	I 15-2(9)128	1077.5'	MB	2-60	334,588	10-60	329,384
(2)	2	I 90-1(11)60 & I 90-3(9)157		SF	2-60	45,559	10-60	40,698
Big Horn	6	I 90-9(11)498		SF	2-60	25,237	7-60	25,096
Powell	2	I 90-3(8)180 U-1 (4)	8.603	GD-GS-BPM-BSC-GR	5-60	1,499,707	5-62	1,592,739
Powell	2	I 90-3(8)180 U-2	1011'	MB	5-60	351,363	8-61	349,980
Powell	2	I 90-3(8)180 U-3		FC	5-60	54,373	6-62	58,721
Yellowstone	5	I 90-8(10)451	1875.5'	MB	5-60	808,984	6-62	793,998
Toole	13	PS I 15-8(3)355		Weigh Station	6-60	17,375	12-60	17,551
Cascade & Toole	12-13	I 15-5(12)275 & I 15-8(7)351		SN	7-60	89,339	1-61	89,454
Silver Bow	10	I 15-2(7)127	336'	MB	8-60	95,892	7-61	95,094
Lewis & Clark	11	I-IG-ING 15-4(4)182 U-3		FC	9-60	43,314	10-61	44,870
Cascade	12	I 15-5(14)250 & I 15-5(15)275		SF	9-60	46,326	11-60	38,343
Toole	13	I 15-8(8)351 & I 15-8(9)379		SF	9-60	13,495	11-60	12,604
Park	3	I-IG 90-7(9)327 U-1 (5)	0.823	GD-GS (6)	9-60	7,805	7-61	4,560
Stillwater	4	I 90-8(7)394	558'	MB	9-60	280,204	12-61	273,482
Silver Bow	10	I 15-2(10)118		SN	10-60	13,009	8-61	12,994
Toole	13	I 15-8(10)379		SN	10-60	12,316	8-61	12,316
Park	3	I-IG 90-7(9)327 U-2	1486.5'	MB	12-60	505,375	6-62	492,488
Beaverhead	9	I 15-1(11)37 U-2	567'	MB	3-61	222,559	6-62	218,938
Cascade	12	I 15-5(13)239 U-2	476'	MB	3-61	220,912	10-61	215,574
Lewis & Clark	11	I-IG-ING 15-4(4)182 U-4 (7)	1.248	MB-GD-GS-BPM-GR	5-61	636,633	6-62	606,567
Lewis & Clark	11	I-IG-ING 15-4(4)182 U-6 (8)		FC	5-61	32,111	6-62	31,628
Mineral	1	I 90-1(15)43		SN	6-61	21,307	11-61	21,705
Powell	2	I 90-3(10)180		SN	6-61	27,357	5-62	27,387
Rosebud	11	I 94-3(3)114 U-2	99'	MB	7-61	56,566	5-62	55,382
Custer	7	I 94-4(8)120 U-2	173'	MB	7-61	46,597	5-62	45,704
				TOTAL		$28,315,524		$28,277,268

(1) Let with S 366(5)
(2) Mineral, Granite & Powell
(3) Let with F 135(17)
(4) Let with F 184(14)
(5) Let with F 13(6) U-1
(6) Railroad Relocation
(7) Let with I 15-4(5)185 U-1
(8) Let with I 15-4(5)185 U-2
(a) And IN 90-9(7)508 U-1

PROJECTS ON PRIMARY SYSTEM

0	1	2		3	4	5	6	7	8
County	Ident. Number	Project Number		Project Length	Type of Work	Date of Letting	Amount of Contract	Date Completed	Final Contract Amount
Powder River	101	DF 198(4), DF 334(16)	(a)	20.397	GD-CSB-BPM-BSC	7-58	$ 565,294	8-60	$ 567,418
Cascade	102	F 235(26) U-1		5.283	GD-GS-BPM-BSC	9-58	740,564	8-60	782,873
Sanders	103	F-F 90(4) FH		949'	MB	11-58	554,932	9-60	551,771
Flathead	104	F 100(8), F 270(9) & F 270(10)		14.635	GD-GS-BPM-BSC	3-59	668,851	8-60	719,522
Granite	105	F 78(7)		9.702	GD-GS-BPM-BSC	4-59	961,524	8-60	931,480
Roosevelt	106	F 84(26)		9.846	GD-GS-BPM-BSC	4-59	496,894	8-60	499,379
Lake	107	F 63(7), F 192(8), F 194(4)	(b)	16.719	GD-GS-BPM-BSC-GR-SN	5-59	605,418	9-60	581,467
Fergus & Phillips	108	F 333(24)		19.875	GS-BPM-BSC	5-59	762,810	8-60	757,901
Hill	109	F-FG 95(11) U-1		7.142	GD-GS-BPM-BSC-GR	6-59	543,201	10-60	567,497
Hill	110	F 132(7)		12.695	GD-GS-BPM-BSC	6-59	835,350	8-60	832,778
Lewis & Clark	111	F 267(10)		16.542	GS-BPM-BSC	6-59	275,217	7-60	256,174
(1)	112	F 43(14) U-1		559.5'	MB	7-59	226,505	10-60	224,614
Flathead	113	U 58(23), U 257(14) U-1	(c)	2.241	GD-GS-BPM-BSC-GR	10-59	363,855	7-61	421,142
Custer	7	F 135(17)	(2)	0.570	GD-GS-BPM-BSC-GR	1-60	34,117	11-61	71,021
(1)	112	F 43(14) U-2		1.895	GD-GS-BST	2-60	137,267	7-61	138,248
Roosevelt	115	F 84(27), F 84(28)	(d)	14.596	GD-GS-BPM-BSC	2-60	758,201	7-61	738,443
Garfield & McCone	116	F 315(13) U-1		8.298	GD	2-60	254,300	10-60	245,999
McCone	116	F 315(13) U-2		204.5'	MB	2-60	74,184	8-60	73,187
Fergus	117	F 333(23) U-1		11.832	GD-GS	2-60	366,520	3-61	344,383
Fergus	117	F 333(23) U-2		173'	MB	2-60	53,846	9-60	53,071
McCone & Dawson	118	F 391(11) U-1		9.100	GD	2-60	271,618	7-60	262,101
McCone	118	F 391(11) U-2		176'	TT	2-60	37,693	7-60	37,453
Cascade	119	U-FFG 395(4)		1126'	MB	2-60	1,139,282	5-62	1,123,881
Gallatin	120	F 76(6) & F 203(7)		13.120	GD-GS-BPM-BSC	3-60	254,049	8-60	236,817
Powell	121	F 249(13)		1.233	GD-GS	3-60	165,322	9-60	171,455
Valley	122	F 189(4) U-1 & F 232(3) U-1		8.184	GD-GS-BPM-BSC	4-60	411,081	7-61	406,845
Valley	122	F 189(4) U-2 & F 232(3) U-2		229.5'	MB (204.5') & TT (25')	4-60	70,545	9-60	69,382
Fergus	123	U 103(7) U-2		34'	MB	5-60	30,191	10-60	29,528
Carter	124	F 262(12)		11.000	GS-BPM-BSC	5-60	265,926	6-61	323,065
Powell	2	F 184(14)	(3)	1.131	GD-GS-BPM-BSC	5-60	66,249	5-62	77,758
Cascade	125	F 149(12)		0.121	GS-BPM-BSC-GR-SN	6-60	19,800	10-60	20,064
Glacier	126	F 208(3)		0.866	GD-GS-BRM-BSC-MB	6-60	136,557	8-64	138,270
Powell	111	F 237(16) & F 267(11)		29.812	GS-BPM-BSC	6-60	984,258	10-61	1,059,286
Deer Lodge	127	F 68(9)		6.088	GD-GS-BPM-BSC	6-60	800,520	8-61	809,895
McCone & Dawson	118	F 391(13)	(4)	9.100	GS-BPM-BSC	6-60	291,006	7-61	278,866
Garfield & McCone	116	F 315(14)		8.298	GS	7-60	89,455	11-60	82,115
Roosevelt & Valley	128	F 84(29) U-1, F 144(5) U-1	(e)	27.561	GS-BPM	8-60	376,574	7-61	376,105
Glacier	129	F 220(7)		0.492	GD-GS-BRM-BSC	8-60	68,063	7-61	65,286
Park	3	F 13(6) U-1	(5)	3.951	GD-GS-BPM	9-60	284,261	7-61	279,688
(1)	112	F 43(15) U-1		31.359	GS-BPM	10-60	381,402	10-61	371,519
Ravalli	130	F 259(9) U-1		14.498	GS-BPM-GR	10-60	248,655	7-61	237,329
Park	131	F 217(12) U-1, F 215(13) U-1	(6)	24.038	GD-GS-BPM	1-61	573,995	8-61	574,961
Fergus	117	F 333(27) U-2		346'	MB	2-61	105,348	9-61	103,675
Fergus	123	U 103(7) U-1		0.325	GD-GS-BPM	3-61	52,717	8-61	53,811
Cascade & Judith Basin	102	F 235(27) U-1		5.113	GD-GS-BPM-MB	3-61	477,171	11-61	484,934
Fergus	117	F 333(29) U-1		11.832	CSB-BPM	3-61	545,558	10-61	561,914
Flathead	132	F 191(21) U-1		7.247	GD-GS-BPM-GR	4-61	252,742	9-61	234,795
Missoula	133	F 215 F	(7)		TC-SI	4-61	4,989	11-61	5,359
Flathead	134	F 260(9)			20,175' GR	4-61	45,394	7-61	45,394
Fallon	135	F 86(19)		1.148	GD-CSB-BPM	4-61	165,351	9-61	162,571
Custer	136	F 156(11) U-2		138'	MB	4-61	49,164	4-62	47,787
Cascade	137	F 65(8) U-2		60'	MB	5-61	32,335	11-61	32,091
Dawson	138	F 246(9) U-1		9.230	GD-GS-BPM-GR	5-61	566,398	10-61	549,443
Lewis & Clark	139	F 50(9)			10,062.5' GR	6-61	22,842	8-61	22,842
Roosevelt & Valley	128	F 84(29) U-2, F 144(5) U-2	(f)	27.561	BSC	6-61	59,621	8-61	49,697
Deer Lodge	127	F 68(11)			SN	6-61	24,022	11-61	24,573
Flathead	104	F 102(2) & F 270(11)			5,762.5' GR	10-61	12,908	4-62	12,908
						TOTAL	$18,662,112		$18,781,851

(1) Deer Lodge-Beaverhead-Silver Bow
(2) Let with I 94-1(5)127 U-1
(3) Let with I 90-3(8)180 U-1
(4) Let with S 31(5)
(5) Let with I-IG 90-7(9)327 U-4
(6) Let with S 273(3) U-1
(7) Let with S 218(4), S 218(5), S-US 220(2) & S 298(2)
(a) & F 334(15) U-2
(b) & F 197(6)
(c) & F 270(7) U-1
(d) & F-FG 273(11)
(e) F 189(5) U-1 & F 232(4) U-1
(f) F 189(5) U-2 & F 232(4) U-2

PROJECTS ON SECONDARY SYSTEM

0	1	2	3	4	5	6	7	8
County	Ident. Number	Project Number	Project Length	Type of Work	Date of Letting	Amount of Contract	Date Completed	Final Contract Amount
Blaine	201	S 187(2) U-1	14.054	GD-GS-BST	9-57	$ 477,952	7-60	$ 467,653
Blaine	201	S 187(1) U-1	12.665	GD-GS-BST	3-58	437,338	7-60	417,507
Meagher	202	S 14(8)	11.859	GD-GS-BPM-BSC	9-58	299,154	9-60	349,756
Lincoln	203	S 38(6)	5.854	GD-GS-BPM-BSC	10-58	283,685	9-60	275,233
Mineral	204	S 216(2)	3.391	GD-GS-BPM-BSC-GR	3-59	297,245	7-60	285,012
Valley	205	S 257(3)	595'	MB (520') TT (75')	5-59	298,814	9-60	296,004
Dawson	206	S 32(9)	10.037	GS-BPM-BSC	5-59	155,420	7-60	153,192
Flathead	207	S 157(2)	10.392	BPM-BSC	5-59	124,413	8-60	115,804
Stillwater	208	S 175(1)	6.431	GD-GS-BPM-BSC	6-59	316,685	7-60	330,667
Pondera	209	S 193(1)	7.397	GD-GS-BPM-BSC	6-59	342,352	9-60	330,882
Musselshell	210	S 236(6) U-1	193'	MB	7-59	54,574	8-60	53,116
Lewis & Clark	211	S 2(7)	7.262	GD-GS-BPM-BSC	7-59	355,006	7-61	315,579
Wibaux	212	S 95(3)	7.010	GD-GS-MB-(TT)	7-59	195,553	7-60	183,834
Garfield	213	S 258(2)	1.186	GD-MB	7-59	90,011	8-60	88,792
Chouteau	214	S 219(4)	7.994	GD-GS-BPM-BSC	10-59	253,961	7-61	271,172
Toole	13	S 366(5) (1)	0.548	GD-GS-BPM-BSC	10-59	10,170	9-61	9,475
Valley	205	S 257(4)	3.788	GD-GS-BPM-BSC	1-60	319,271	8-61	323,310
Park	216	S 273(2)	360'	MB	1-60	126,485	10-60	125,182
Fergus & Chouteau	217	S 307(8)	4.224	GD-GS-BPM-BSC-TT	1-60	199,662	8-60	189,733
Beaverhead	218	S 35(9)	5.092	GD-GS	1-60	295,563	9-60	279,122
Roosevelt	219	S 200(4)	2.495	GD-GS-BST-MB	1-60	139,272	10-60	135,841
Ravalli	220	S 227(3)	3.714	GD-GS-BPM-BSC	1-60	192,851	8-60	189,217
Golden Valley	221	S 71(3)	5.038	GD-GS-TT	2-60	128,620	7-60	135,111
Prairie	222	S 201(3)	4.863	GD-GS	2-60	106,308	7-60	103,252
Liberty	223	S 303(4)	5.269	GD-GS-BPM-BSC	2-60	214,688	7-61	211,200
Cascade	224	S 312(2) & S 336(2)	5.625	GD-GS-BPM-BSC	2-60	261,457	9-60	249,699
Toole	225	S 366(7)	6.273	GD-GS	2-60	156,723	11-60	148,032
Dawson	206	S 32(10)	9.935	GS-BPM-BSC	3-60	156,405	8-60	146,169
Teton	226	S 90(2)	7.074	GD-GS-BPM-BSC	3-60	278,057	9-60	270,233
Blaine	227	S 179(3)	8.818	GD-GS	4-60	171,337	10-60	157,555
Glacier	228	S 248(4)	7.669	GD-GS	4-60	282,760	9-60	257,069
Glacier	229	S 266(1)	9.789	GD-GS-BPM-BSC-GR	4-60	584,286	8-61	588,805
Powell	230	S 291(4)	6.346	GD-GS-BPM-BSC	4-60	362,896	10-61	342,677
Big Horn	231	S 322(5) U-1	183'	MB	4-60	47,224	10-60	46,584
Big Horn	231	S 322(5) U-2	5.109	GD-GS-BPM-BSC	4-60	317,203	6-61	307,783
Yellowstone	232	S 132(3)	8.235	GS-BPM-BSC	5-60	208,942	6-61	198,912
Carter	233	S 184(3)	15.363	GD-GS	5-60	307,075	4-61	298,455
Hill	234	S 242(1)	4.353	GD-GS-BPM-BSC-TT	5-60	193,898	8-61	186,439
Carter & Stillwater	235	S 289(8) & S 346(5)	7.726	GS-BPM-BSC	6-60	137,855	9-60	129,348
McCone	118	S 31(5) (2)	0.616	GD-GS-BPM-BSC	6-60	60,179	7-61	59,607
Roosevelt	237	S 402(2)		GD	6-60	36,892	10-60	36,214
Judith Basin	238	S 121(2)	5.665	GD-GS-MB	7-60	154,116	3-61	160,022
Musselshell	239	S 236(6) U-2	0.681	GD-GS-BRM-BSC	7-60	39,573	9-60	37,423
Custer	240	S 388(1)	8.615	MB-GD-GS-BPM-BSC-GR	7-60	495,858	8-61	492,505
Beaverhead	218	S 35(10)	15.894	GS-BPM-BSC	8-60	271,297	8-61	271,288
Gallatin	241	S 370(12)	5.760	GD-GS-BPM-BSC-GR	8-60	470,572	8-61	455,554
(3)	242	S 160(1)	244.5'	MB	9-60	106,857	6-61	107,983
Jefferson	243	S 9(9) U-1	8.498	GS-BPM	10-60	177,992	8-61	175,155
Daniels	244	S 8(10) U-1	8.976	GD-GS-BPM	11-60	334,565	8-61	331,716
Lake	245	S 65(4) U-1	4.858	GD-GS-BPM	11-60	512,338	6-62	548,021
Deer Lodge	246	S 304(5)	6.694	GD-GS	11-60	144,874	7-61	132,867
Fergus	247	S 68(4) U-1	10.502	GS-BPM	11-60	267,414	7-61	260,594
Sanders	248	S 221(1)	4.961	GD-GS-GR	11-60	295,297	8-61	317,950
Richland	249	S 361(10) U-1	5.489	GD-GS-BPM	12-60	325,784	9-61	322,588
Park	131	S 273(3) U-1 (4)	0.777	GD-GS-BPM	1-61	38,101	8-61	36,909
Garfield	250	S 258(3)	6.723	GD-GS	1-61	180,512	4-62	180,542
Roosevelt	251	S 180(1)	7.635	GD-GS-BRM-TT	2-61	196,829	8-61	215,309
Cascade	252	S 329(4) U-1	10.276	GS-BPM	2-61	396,665	8-61	425,238
Flathead	253	S 7(6) U-1	6.549	GD-GS-BPM	3-61	457,922	6-62	475,719
Hill	254	S 13(5) U-1	5.288	GD-GS-BPM	3-61	327,240	6-62	316,854
(6)	255	S 330(1) U-1	2.527	GD-GS-BPM-GR	3-61	119,956	8-61	113,568
Missoula	133	S 218(4), S 218(5), S-US 220(2), S 298(2) (5)	2.645	GD-GS-BPM-GR-SI-TC	4-61	87,587	11-61	88,781
Treasure	256	S 50(4)	7.962	GD-GS	6-61	218,705	5-62	211,522
Park	257	S 66(2) U-1	1.218	GS-BPM	6-61	27,478	8-61	25,980
Blaine	227	S 179(4)	6.315	GD-GS-GR	6-61	120,348	6-62	108,625
Judith Basin	238	S 121(3)	5.334	GD-GS	6-61	113,812	12-61	115,425
Carbon	258	S 136(2) U-1	10.539	GS-BPM	6-61	212,473	11-61	213,599
Phillips	259	S 187(8) U-1	10.619	GS-BPM-GR	6-61	259,485	11-61	257,585
Big Horn	260	S 260(3) U-1	11.412	GS-BPM	6-61	211,507	6-62	201,922
				TOTAL		$15,843,602		$15,710,163

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(1) Let with I-IG 15-8(6)379 U-1
(2) Let with F 391(13)
(3) Madison, Silver Bow & Jefferson
(4) Let with F 217(12) U-1 & F 217(13) U-1
(5) Let with F 215 D
(6) Jefferson and Lewis & Clark

The U. S. Bureau of Public Roads is responsible for the construction of those portions of the State Highway System which lie within National Forests. That agency has constructed a few miles of very fine highway. These roads, aside from right-of-way, are constructed entirely with Federal Funds. Maintenance is done by the State. The following tabulation lists projects completed by the Bureau during the biennium.

County	Ident. No.	Project Number	Length	Type of Work	Date Award	Contract Amount	Date Completed	Final Cost
Beaverhead	401	FHP 20-A	6.771	GD-MB (TT)	9.58	$258,000	8-60	$262,000
Gallatin	402	FHP 42-K2, L3	8.878	GD-GS-MB	11-58	428,728	8-60	441,557
Flathead	403	FHP 12-A4, B3, C2	13.950	BPM	12-58	175,861	8-60	171,967
Lincoln	404	FHP 5-A1, B	9.112	GD-MB (TT)	7-59	414,622	10-60	405,028
Flathead	405	FHP 13-15, J3	3.994	GD-GS-BST	10-59	518,794	10-60	569,293
Sanders	406	FHP 6-D5	2.293	GD-GS-BRM	3-60	151,524	7-61	157,839
Gallatin	407	FHP 45-C1	1.6	GD-GS-BST	5-60	28,000	8-60	28,000
Sanders	408	FHP 6-B2, C2, 15	6.517	Slide & Repair	6-60	22,000	10-60	21,362
Gallatin	409	FHP 46-A4	8.038	GD-GS-BPM-MB	6-60	423,840	9-61	443,906
Flathead	405	FHP 13-F6	2.107	GD-GS-BST	7-60	184,248	8-61	175,149
Cascade (King's Hill sec.)		FHP 32-A9	5.060	GD-GS	7-60	387,823	9-61	454,111
Madison	410	ERFO 40(1) (a)	3.792	GD-GS	12-60	338,990	6-62	376,558
Madison	410	ERFO 41(1) (a)	3.792	BST	6-62	25,000	6-62	25,000

(a) Quake Lake road between Madison and Gallatin rivers.

The Bureau of Public Roads also made contract awards for highway construction in the following counties: Madison, Gallatin, Beaverhead, Meagher, Mineral and Glacier. The work totaled: 65.4 miles, 1053 feet of major bridges, $3,768,900 in award value. All but about 10 miles will be oiled on completion, which is scheduled for 1962.

Table "D" on Page 9 shows more statistics concerning the National Forest Highway System.

TABLE "R-O-W"

Right-of-Way Fencing Contracts

County	Project (ROW)	Length Rods	Date Let	Contract Price	Date Completed	Final Cost
Cascade	S 312(2) & S 336(2)	1073	2-60	$ 1,795	8-60	$ 1,820
Ravalli	S 227(1)	953	3-60	3,089	7-60	3,317
Gallatin	FHP 46A4	1248	4-60	4,119	10-60	5,218
Powell	I 90-3(2)179	258	6-60	1,224	8-60	1,212
Glacier	S 248(1)	4387	7-60	13,512	10-60	13,992
Madison	FHP 60A	5589	8-60	49,841	11-61	48,274
Lake	S 65(4)	481	11-60	1,621	5-61	1,652
Deer Lodge	S 304(2)	1344	1-61	3,544	4-61	4,030
Park	F 217(13)	1731	2-61	4,970	4-61	4,985
Broadwater	S 6(4)	101	9-61	347	10-61	362
Sanders	F 90(5)	312	1-62	1,405	4-62	1,453
Blaine	S 12(9)	220	4-62	818	5-62	814

TABLE "CM-A"

GRAVEL STOCKPILES FOR MAINTENANCE

Project No.—SMP	County	Tons of Gravel	Date Let	Contract Price	Date Completed	Final Cost
1599	Flathead, Lake, Lincoln	135,000	3-60	$124,470	7-61	$131,885
3499	Park, Meagher	37,500	5-60	36,952	8-60	36,978
0899	Cascade, Chouteau, Teton	89,750	7-60	74,036	3-61	74,700
4599	Sanders, Missoula, Mineral, Lake, Granite	139,500	8-60	128,703	4-61	136,923
1299	Beaverhead, Broadwater, Deer Lodge, Jefferson, Madison, Silver Bow	95,000	9-60	68,650	4-61	68,546
0399-61	Blaine, Chouteau, Glacier, Hill, Toole	81,000	5-61	84,968	1-62	107,305
0599-61	Big Horn, Carbon, Yellowstone	95,000	6-61	83,600	12-61	91,709
3399-61	Golden Valley, Musselshell, Yellowstone	90,000	6-61	61,470	11-61	60,390
3199-61	Mineral, Missoula	80,500	6-61	79,335	5-62	80.143
1699-61	Gallatin, Madison	60,000	7-61	47.415	6-62	47,567

Increase in Final cost caused by increase in quantities.

TABLE "CM-B"

MISCELLANEOUS MAINTENANCE CONTRACTS

Project No.—SMP	County	Type Work	Date Let	Contract Price	Date Completed	Final Cost
3110-22	Mineral	Seal Coat	7-61	$ 68,437	9-61	$ 53.587
1803-04-42	Glacier	Sectionman's Living Qtrs., St. Mary	10-60	19,404	6-61	19,230
102-1501-02-12	Flathead	Office Extension, Kalispell	7-61	21.675	11-61	22,965
301-0020-01	Cascade	New Shop and Office, Great Falls	6-59	189,158	2-61	187,850

TABLE "MW-A"

Miscellaneous Work

County	Project Number	Type Work	Date Let	Contract Amount	Date Completed	Final Contract Amount
Daniels	R-AD-5(2)	Grade, drain and gravel	12-60	$25,392	6-61	$25,392
Hill	AR-302-0061-05-012	Bridge Repair	8-61	3,440	10-61	3,440
Liberty	SPP-071-9009-10	Water System—Tiber Dam	8-60	2,273	10-60	2,273
Toole and Liberty	SPP-071-9009	Well Drilling—Tiber Dam	6-60	3,240	8-60	2,218
Lewis & Clark	SPP-071-7209	Well Drilling—Canyon Ferry	6-60	6,172	8-60	4,338
*Silver Bow	S 213(3)	Storm Drain and Interceptor Ditch	12-57	36,259	9-60	36.174

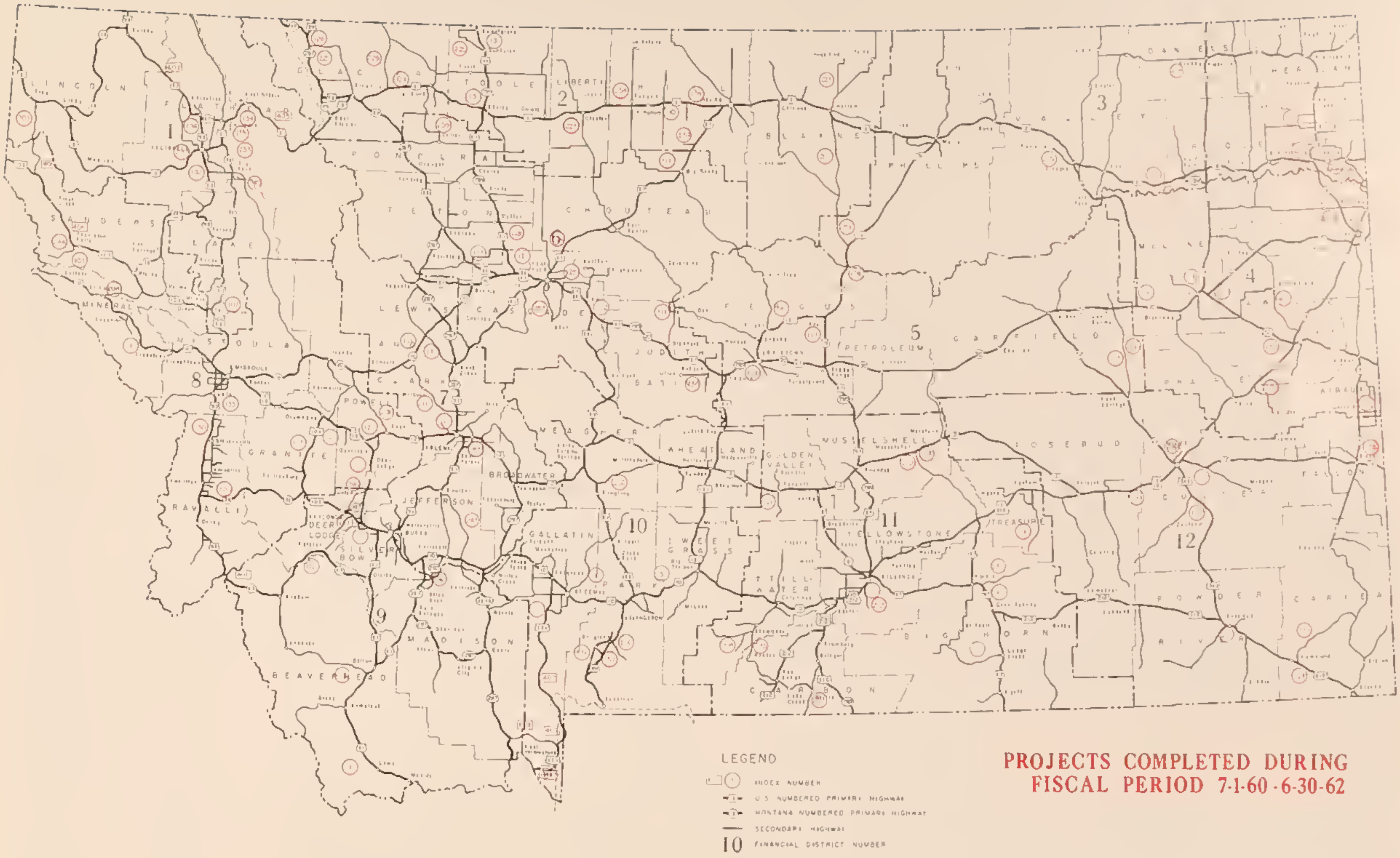
Notes:

R-AD—Radar Access Road
AR—Cost paid by others
SPP—State Parks Department

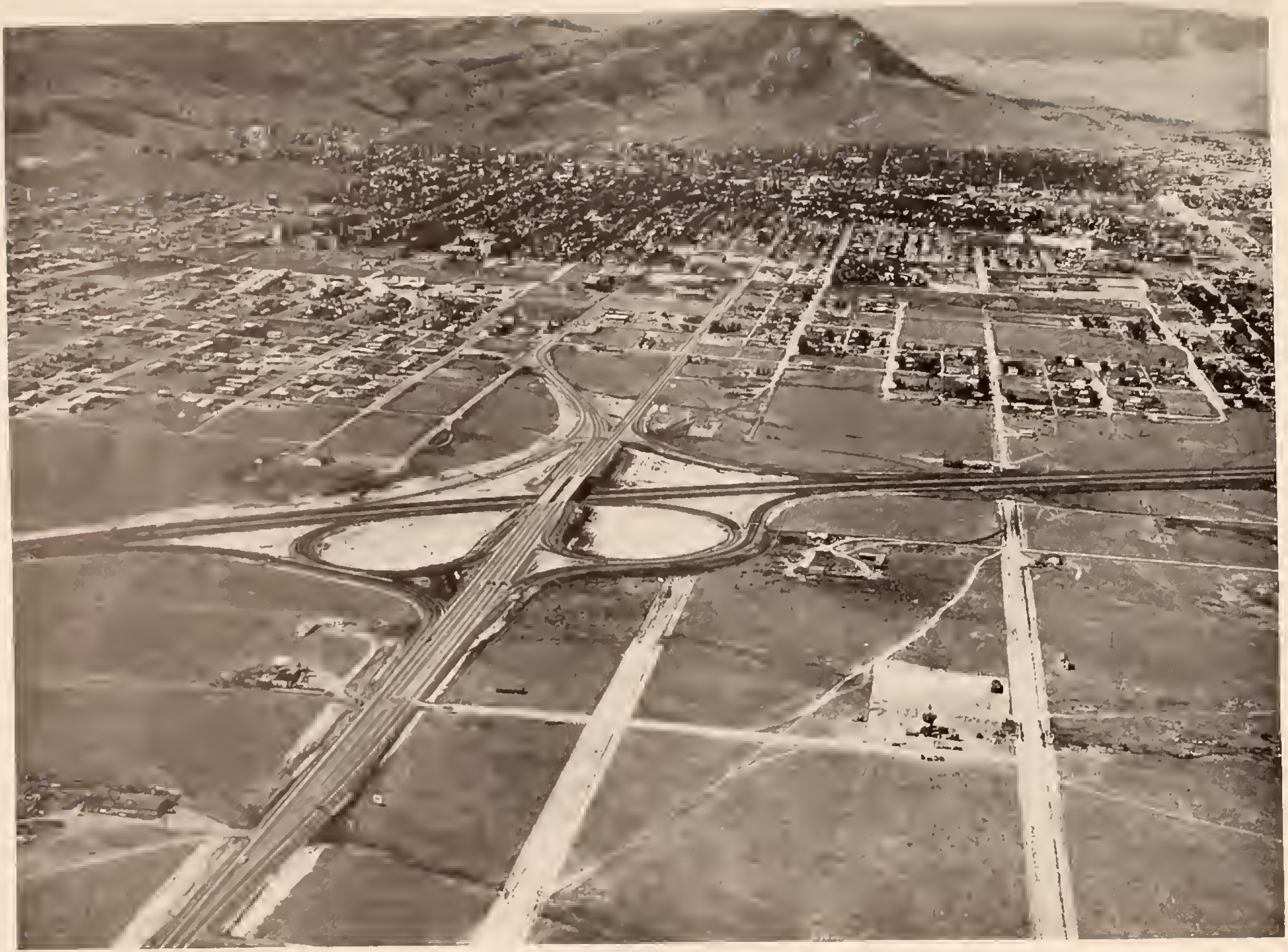
* Negotiated Contract With Silver Bow County

Interstate 90 crosses the Yellowstone River east of Reed Point.

Construction on Interstate 15 in Little Prickly Pear Creek Canyon south of Wolf Creek and near Sieben.



PROJECTS COMPLETED DURING
FISCAL PERIOD 7-1-60 - 6-30-62



Interstate Highway No. 15 at east side of Helena (looking west).

RIGHT-OF-WAY REPORT

Acquisition of rights-of-way for construction of public highways has become an increasingly complex function of this Commission. Many changes in procedure have been necessary due to economic conditions and the greater financial role of the Federal Government.

To stay abreast of new procedural developments, the Right-of-Way Division conducts general and specialized training courses. Seminars have been held for instruction of new employees and refresher courses for veteran employees in the general policies and procedures of the Right-of-Way Division. Schools have been held for instruction of appraisers in accepted appraisal methods. Employees of the Federal Government, and State Departments other than this Commission, have benefitted by attendance at our appraisal schools.

Most difficulty has arisen in acquisition of Interstate highway rights-of-way. Some difficulty was anticipated in this field because the concept of controlled access highways was new, not only to Montana but to the entire Rocky Mountain area. Particularly in the western part of the State, a combination of population centers and geography has increased the problems of highway location and right-of-way acquisition. The Highway Commission strives to locate State highways to serve the greatest number of people. These conditions pose many problems in the acquisition of highway rights-of-way.

The financial role of the Federal government in the Interstate program has imposed many restrictions and greatly increased the work detail of the Right-of-Way Division.

During this biennium it was necessary to institute 218 condemnation actions to acquire rights-of-way.

Approximately 63 per cent of all condemnation acquisitions have been on the Interstate System. Condemnation awards have generally exceeded the State's appraised value of the right-of-way required. In an attempt to conserve public funds, all condemnation awards considered excessive have been appealed for jury trial and, in some instances, jury verdicts have been appealed to the State Supreme Court.

In addition to acquiring rights-of-way for State constructed highways, the Right-of-Way Division acquires rights-of-way for highways constructed by the Bureau of Public Roads, including access roads to the various installations of the Minuteman Missile Complex.

Lands acquired for highway construction range from highly developed urban properties through agricultural and grazing land, Indian reservations and national forests down to sub-marginal public domain. Negotiations for these lands must be conducted with owners varying from several departments of Federal and State government to corporations, trusts, estates and individuals. Such a variation of ownerships necessarily requires many different methods of procedure. In addition, the State's title to the right-of-way must be cleared of mortgages, liens and other encumbrances. Payments for land and innumerable types of damage are made, instruments recorded and records maintained for use by both the State Highway Commission and the Bureau of Public Roads. Subsequent to the acquisition of right-of-way the Right-of-Way Division is responsible for clearing all improvements in the path of the highway construction. All of these varied functions must be accomplished in compliance with State and Federal laws, and policies and procedures imposed by the Bureau of Public Roads. To effect right-of-way acquisition, Right-of-Way Agents and supervisory personnel must have some knowledge of applicable Federal and State laws and regulations, land titles, appraisal techniques, and economics.

Right-of-Way for 111 highway projects was acquired during the biennium.

Listed in the following tabulations are right-of-way acquisitions during this biennium.

System	No. of Miles	No. of Parcels	No. of Acres	Cost of Land	Ave. Cost Per Acre
Interstate	191.4	644	3558.97	$ 960.079.21	$269.76
Primary	263.5	730	2266.78	627,732.87	276.93
Secondary ..	663.1	762	1897.51	151,107.10	79.63
Totals	1118.0	2136	7723.26	$1,738,919.18	$225.15

For appraisal and negotiation purposes, land is classified generally in thirteen categories. The highest average cost of land acquired was for commercial land at $3.401.77 per acre, and the lowest average cost was for timber grazing land at $41.14 per acre.

Fencing of access controlled highways is accomplished as a construction item and is installed by the State Highway Commission.

Fencing of Primary and Secondary highways, in nearly all instances, is arranged at the negotiation level and accomplished by landowners or their lessees. The average cost per rod for all types of fence excepting access control fence is set forth below.

System	Construct	Reset
Primary	$3.70 per Rod	$2.49 per Rod
Secondary	4.52 per Rod	2.26 per Rod

In many instances the State Highway Commission must purchase structural improvements on land acquired for highway rights-of-way. Purchase of such improvements constitutes 1 percent of the right-of-way cost of Secondary highways, 10.7 percent of the right-of-way cost of Primary highways, and 17.4 percent of the right-of-way cost of Interstate highways.

All of the costs set forth in this report are direct expenditures and do not include salary, subsistence, administrative and incidental costs.

GROSS VEHICLE WEIGHT FEES AND COLLECTIONS

The tabulation shown on this page reflect collections of gross vehicle weight fees, and other related and incidental fees, under the provisions of Title 53, R.C.M., 1947, Sections 53-615 and 53-629. Registration and plate fees and sales taxes are collected by County Treasurers and directed to the Highway Fund. Prorata fees and trip permits are collected and processed by the Gross Vehicle Weight Division of the Highway Department in cooperation with other agencies.

This Division, as delegated agent of the State Board of Equalization, issues Special Fuel User's Temporary Trip Permits as provided by Chapter 200, 1961 Session Laws. 3,305 permits were issued in the fiscal year 1961-62 at a fee of $20.00 each, amounting to $66,100.

Inasmuch as all gross vehicle weight fee collections and registrations are on a calendar year basis, the data shown below is for calendar years 1960 and 1961. The left column is for 1960, the right for 1961. Amounts have been rounded to the nearest dollar.

TRUCK AND TRAILER FEES PAID WITH VEHICLE REGISTRATION FEES

	Number Vehicles	Total Collections			Number Vehicles	Total Collections		
Truck and Truck-Tractor								
100% Fee	49,605	$ 824,656			51,058	$ 849,621		
75% Fee	1,633	130,323			1,233	128,438		
20% Fee	59,225	380,577			59,293	381,158		
Prorated Fees	895	85,514			1,150	80,537		
$5.00 Fees	1,031	5,033			1,177	5,715		
Total Truck Fees			$1,426,103				$1,445,469	
Busses								
Busses	178	$ 20,998			155	$ 18,039		
Busses	407	EXEMPT			561	EXEMPT		
Total Bus Fees			$ 20,998				$ 18,039	
Trailers and Semi-Trailers								
100% Fee	3,955	$ 155,349			3,937	$ 203,304		
75% Fee	1,040	45,634			747	46,801		
20% Fee	1,426	9,301			1,474	9,312		
Prorated Fees	983	108,060			1,080	52,598		
$5.00 Fees	141	667			192	882		
Trailers	18,018	EXEMPT			19,290	EXEMPT		
House	7,043	75,933			7,744	77,611		
Total Trailer Fees			$ 394,944				$ 390,508	
Total Truck & Trailer Fees				$1,842,045				$1,854,016
Total Vehicles	145,940				149,091			

TRUCK AND TRAILER FEES PAID BY MEANS OTHER THAN REGISTRATION FEES

	Total Collections			Total Collections		
Truck and Truck-Tractor						
100% Fee	$ 11,105			$ 15,083		
75% Fee	3,801			2,919		
20% Fee	2,080			3,889		
Prorate Fee	381,818			340,735		
$5.00 Fee	252			242		
100% Quarter Fee	213,356			246,767		
75% Quarter Fee	106,755			119,882		
20% Quarter Fee	1,420			1,528		
Total Truck Fees		$ 707,587			$ 731,045	
Busses						
Busses	$ 153			$ 000		
Total Bus Fees		$ 153			$ 000	
Trailers & Semi-Trailers						
100% Fee	$ 11,912			$ 10,921		
75% Fee	3,385			722		
20% Fee	141			345		
Prorate Fee	42,806			122,042		
$5.00 Fee	20			10		
100% Quarterly Fee	92,645			107,015		
75% Quarterly Fee	45,411			48,924		
20% Quarterly Fee	422			243		
House Trailers	431			000		
Total Trailer Fees		$ 197,173			$ 290,222	

OTHER AND ADDITIONAL COLLECTIONS

$1.00 Quarter Fee	$ 9,561			$ 10,913		
Change of Weight	26,800			35,637		
Temporary Trip Permits	234,821			264,388		
Total		$ 271,182			$ 310,938	
Total Fees Paid with Other Than Registration Plate Fees			$1,176,095			$1,332,205

MISCELLANEOUS COUNTY COLLECTIONS

New Passenger Car Sales Tax	$ 509,972			$ 435,519		
Total		$ 509,972			$ 435,519	
Temporary Trip Permits	$ 9,021			$ 6,609		
Total		$ 9,021			$ 6,609	
ADJUSTMENTS	$ −27,842			$ +30,721		
REFUNDS	− 5,014			− 4,063		
Total		$ −32,857	$ 486,136		$ +26,658	$ 468,786
			3,504,276			3,655,007
5% Retained by County			−175,214			−182,750
			$3,329,062			$3,472,257

FINANCIAL REPORT

The Chief Accountant's functions, duties and responsibilities are to account for all monies received and expended from the State Highway Fund and the State Highway Trust Fund and to keep segregated records thereof; to establish cost accounting procedures which will give detailed itemization of receipts and disbursements; and to provide all financial reports and records, as required by law or administrative directive, which are needed by the State Highway Commission, State Highway Engineer, Administrative Divisions and Section Heads as they relate to the administration, construction and maintenance of the State's highway system.

Section 32-1619 of the Montana Codes requires the establishment of the State Highway Fund, known as the "138 Fund" and the State Highway Trust Fund, known as the "104-10 Fund." This statute states that the State Highway Fund shall be credited with all monies received which are for the use and purpose of the State Highway Commission, except as therein provided. The State Highway Trust Fund shall be credited with all monies received from the Federal Government; and from counties, cities and other miscellaneous sources, which are received for expenditure by the Commission for the actual construction of specific projects.

Section 32-1620 of the Montana Codes requires cost accounting procedures; specifying that the Highway Commission shall provide a system of accounting for each project which shall reflect the amount of money received thereon and an itemized statement of the costs in connection therewith.

To meet the requirements of the law and to provide all necessary financial information, the Commission has empowered the Chief Accountant to establish a system whereby all monies and costs incurred will be accurately reflected in detail. The Chief Accountant, to accomplish this end, utilizes a system which is patterned after the system approved by the American Association of State Highway Officials. During the past biennium a new Accounting Manual was prepared and printed which updated past procedures to facilitate the processing of the greater volume of transactions due to the expanded highway program. A new Cost Accounting Coding Manual was also prepared and printed during the biennium to simplify and standardize the coding procedure to insure an accurate flow of detail to the latest type of Accounting and Data Processing machines available.

All claims and payrolls which are presented for payment are pre-audited to assure that proper authority was given before incurrence, for legality, correctness and proper cost accounting coding.

The State's financial share of the cost of construction and reconstruction of highways, engineering and procuring of rights-of-way is transferred from the State Highway Fund to the State Highway Trust Fund, from which this class of claim is paid. The State's share provides the initial funds with which to pay contractors, engineering costs and rights-of-way purchases. Federal monies are received on a reimbursable basis after the work has been ecomplished and paid for by the State and then only for its prorated share of the work actually in place at a given time.

The State Highway Commission must have an approved agreement with the Bureau of Public Roads, by project, in order for that agency to participate in any of the costs incurred. All such costs must conform to regulations and procedures set forth in the basic agreement or the Bureau of Public Roads will not participate in their share of the costs incurred.

Generally, as construction progresses, the State can be reimbursed for the Federal share, within a relatively short period, by the use of progress vouchers. However, before the State recovers the Federal share completely, all work must be completed and the project accepted by both the State Highway Commission and Bureau of Public Roads. A final voucher is then prepared for payment and a complete audit made of all cost records before final payment. Receipt of final payment on most projects is from three to six months and may even be delayed as long as a year due to technicalties involved. Detailed cost sheets must be prepared by the accounting section for each project and the original costs documents must be tediously searched out and examined by the auditors, this tends to slow down the payment of these vouchers. With the thought in mind of speeding up these processes, a "Concurrent Audit" program has been outlined and cost accounting procedures drawn up for adoption July 1, 1962, greatly accelerating the reimbursement to the State of the Federal government's prorata share on every active programmed project, through the use of accounting machine billing vouchers.

The need for such a program was felt because of the greatly accelerated "Interstate" program, upon which contracts are let that run into millions of dollars. The State's financial share of such projects is approximately nine per cent of the total cost. With the use of modern construction equipment, a project could very well be twenty-five percent complete before the Federal Government reimburses the State for their share, on the first voucher submitted to them. The State could not finance such a program for any lengthy period of time. The "Concurrent Audit" program will speed up the vouchering process and eliminate the detailed auditing. The detailed hand prepared cost analysis for each project will no longer have to be prepared and costs on all active projects will be billed simultaneously. Through the elimination of these factors the lapse of time between incurring of costs by the State and reimbursement by the Federal Government will be shortened considerably. This will serve to protect the State's financial position to a greater degree.

The Federal Government, through the Bureau of Public Roads, apportions funds to the State by system; namely, Primary, Secondary, Interstate, and Urban. The State must then match these Federal funds by system and this matching must be further segregated by Financial district apportionment.

Receipt and Expenditures accountability for the biennium, July 1, 1960 through June 30, 1962, amounted to nearly $114,000,000.00 This includes receipts and expenditures for the State Parks Division, which must be segregated from highway funds, the responsibility for which was given the Chief Accountant by State law.

The tables on Pages 34 and 35 show a detailed analysis of these receipts and expenditures for this biennium.

STATEMENT OF RECEIPTS AND EXPENDITURES FOR THE BIENNIUM

Receipts

	1960 - 1961	1961 - 1962	Biennium	Total
Fund Balances and Receipts	$	$	$	$
Fund Balances July 1, 1960				
State Highway Fund—138	8,912,608.52			
State Highway Trust Fund 104-10	943,190.83			
Federal Aid Trust Fund 104-70	2,346.06			
Vouchers Receivable—Bureau of Public Roads	609.51			
Total Fund Balances July 1, 1960				$ 9,858,754.92
Receipts—State Sources				
Motor Fuel Tax	$ 17,080,583.18	$ 17,012,502.18	$ 34,093,085.36	
U. S. Oil Royalties	810,852.17	878,499.50	1,689,351.67	
Gross Vehicle Weight Fees	3,391,947.05	3,681,864.27	7,073,811.32	
New Auto Caravan Fees	9,248.25	7,258.00	16,506.25	
Proportional Licensing	54,146.03	59,788.00	113,934.03	
Size and Weight Permits	91,575.00	108,556.00	200,131.00	
Violations—Special Fuel Permits	195.00	827.50	1,022.50	
Miscellaneous Income	10,076.12	24,080.50	34,156.62	
Gross Income—State Sources			43,221,998.75	
Less Legislative Appropriations			376,745.51*	
Total Net Receipts—State Sources				$ 42,845,253.24
Federal Aid Receipts				
Primary System	$ 5,911,167.86	$ 6,649,281.33	$ 12,560,449.19	
Interstate System	15,752,662.46	19,313,105.70	35,065,768.16	
Secondary System	6,038,188.38	5,166,632.93	11,204,821.31	
Federal Lands		11,154.50*	11,154.50*	
Grade Crossings—Primary	115,198.78	255,501.56	370,700.34	
Grade Crossings—Secondary		7,946.43*	7,946.43*	
Defense Access Projects	2,092.00	27,639.43	29,731.43	
Urban System	302,054.96	335,984.13	638,039.09	
Forest Highways	3,158.89		3,158.89	
Total Federal Aid Receipts				$ 59,853,567.48
Miscellaneous Receipts				
Counties, Cities, Railroads, etc.	$ 304,387.86	$ 784,695.00	$ 1,089,082.86	
Total Miscellaneous Receipts				$ 1,089,082.86
Federal Aid Trust 104-70				
Less Reversion to Government	$ 2,955.57*	$	$ 2,955.57*	$
Total Federal Aid Trust Receipts				2,955.57*
Total Receipts and Fund Balances for Biennium				$113,643,702.93

*Denotes Deduction

Disbursements

	1960 - 1961	1961 - 1962	Biennium	Total
Disbursements				
Construction				
Payments to Contractors	$ 30,447,523.24	$ 32,608,044.61	$ 63,055,567.85	$
Construction Supervision	3,575,175.93	4,109,139.70	7,684,315.63	
Rights-of-Way	4,062,528.85	3,804,762.60	7,867,291.45	
Preliminary Engineering	2,153,835.93	3,212,159.12	5,365,995.05	
Total Construction				$ 83,973,169.98
Maintenance				
Maintenance	$ 6,803,504.82	$ 7,526,220.70	$ 14,329,725.52	
Supervision	279,246.54	320,060.41	599,306.95	
Total Maintenance				$ 14,929,032.47

Disbursements (Continued)

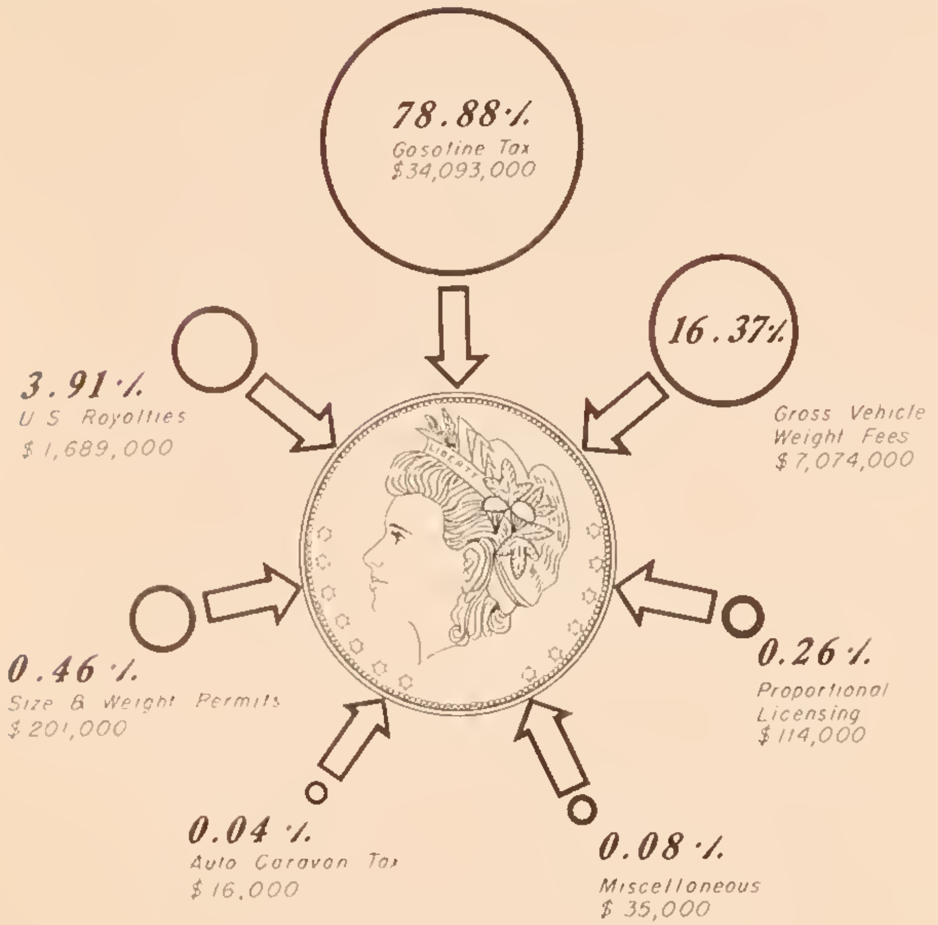
	1960 - 1961	1961 - 1962	Biennium	Total
Capital Outlay				
Equipment				
Office	$ 44,575.72	$ 52,245.70	$ 96,821.42	
Photographic	24,059.69	13,889.75	37,949.44	
Engineering	11,722.08	13,682.42	25,404.50	
Laboratory	7,073.90	9,466.29	16,540.19	
Mobile and Maintenance	662,869.55	466,942.48	1,129,812.03	
Minor Maintenance and Construction	1,629.08	6,698.04	8,327.12	
Aircraft	99,294.16	12,062.18	111,356.34	
Total Equipment				$ 1,426,211.04
Stores				
Mobile and Maintenance	$ 55,034.64	$ 76,595.70*	$ 21,561.06*	
Construction Materials	12,969.35	4,861.86	17,831.21	
Office	6,809.71	17,811.06	24,620.77	
Gravel	140,902.56	232,831.59	373,734.15	
Automotive Repair Parts	19,886.04	843.24*	19,042.80	
Total Stores				$ 413,667.87
Gravel Production for Stores	$ 190,214.74	$ 187,662.71*	$ 2,552.03	$
Authorized Shop Expenditures	46,922.73*	26,816.34	20,106.39*	
Highway Buildings	282,132.83	184,810.50	466,943.33	
Construction of Radio Stations	6,221.03	20,855.12	27,076.15	
Division Shop Tools	25,243.19	26,524.88	51,768.07	
Division Gasoline Storage	10,601.40	4,733.32	15,334.72	
Division Road Oil Storage	10,766.88	2,207.19	12,974.07	
Construction Gravel and Sand Pits	9,094.52*	11,727.74*	20,822.26*	
Total Other Outlay				$ 445,822.46
Less State Owned Equipment Earnings Surplus				$ 1,196,343.84*
Miscellaneous Outlay				
Highway Tourist Road Maps	$ 49,905.45	$ 59,691.37	$ 109,596.82	$
Dissemination of Public Information	84,998.24	126,458.27	211,456.51	
Accounts Receivable	20,183.74	3,931.85	24,415.59	
Losses—Fire and Other	.....	2,096.14*	2,096.14*	
Bad Debts	.....	410.50	410.50	
Highway Building Repairs	41,600.52	42,467.28	84,067.80	
Gross Vehicle Weight Fee Collection Expense	223,833.89	275,915.62	499,749.51	
Importers' Gas Tax Collection Expense	6,990.65	10,757.64	17,748.29	
Undistributed Payroll Overburden	149,267.28	159,294.27*	10,026.99*	
Undistributed Service Charges	.	78,546.48	78,546.48	
State Parks Access Roads	20,708.52	19,465.33	40,173.85	
Total Miscellaneous Outlay				$ 1,054,042.22
Administrative				
Commission Administrative	$ 22,189.01	$ 20,781.01	$ 42,970.02	$
Department Administrative	658,760.18	721,213.80	1,379,973.98	
Total Administrative				$ 1,422,944.00
Add Fund Balances June 30, 1962				
State Highway Fund	$	$ 10,723,560.16		
State Highway Trust Fund		451,596.57		
Total Funds on Hand				$ 11,175,156.73
Total Expenditures and Fund Balances June 30, 1962				$113,613,702.93

*Denotes Deduction

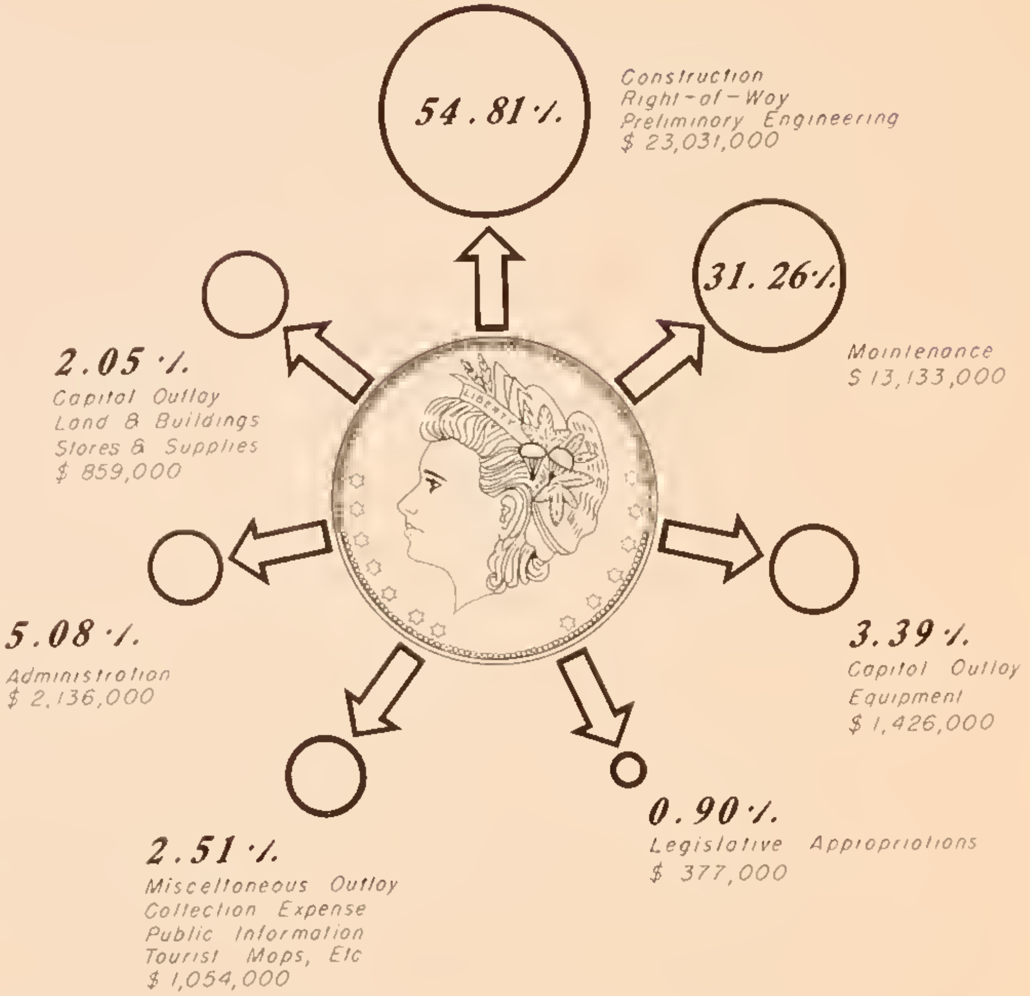
THE HIGHWAY DOLLAR

◆ ◆

WHERE IT CAME FROM



WHERE IT WENT



$ 43,222,000 TOTAL HIGHWAY REVENUE FOR BIENNIUM

HIGHWAY MAINTENANCE REPORT

The Maintenance Engineer supervises a component of the State Highway Commission organization to which is assigned the principal duty of upkeep and restoration of all roads and bridges on the primary system, and selected secondary roads, in such a manner that they may be kept in a safe and comfortable travelling condition during all seasons of the year, and to keep records pertaining thereto. Incidental to this duty, the Maintenance Engineer and the Helena Maintenance office personnel are responsible for:

> The purchase and maintenance of all equipment used by all components of the Highway Department and to keep records pertaining thereto, including inventories and operation costs.
>
> The purchase and distribution of all field supplies and materials, and to keep stores' records of those items kept in stock.
>
> The purchase, construction and repair of all Department buildings, except headquarters, for the housing and repair of equipment and field offices.
>
> The construction and maintenance of all radio facilities used by the entire Department.
>
> The enforcement of the law pertaining to the Size and Weight of Motor Vehicles, including sale of permits for size and weight in excess of the maximum specified by the law.
>
> The collection and dissemination of road information to the press and radio, as affected by construction and weather conditions.

The State is divided into five Districts which are further divided into Maintenance Divisions. There are eleven Maintenance Divisions in which Division Offices, shops and storage facilities are maintained. Division Engineers, under the general supervision of five District Engineers, are responsible for the maintenance of the primary system of roads in their respective areas.

The average number of employees in the eleven Maintenance Divisions varies from approximately forty in the smaller divisions to one hundred and ten in the larger divisions. Mileage of road maintained by the Maintenance Divisions varies from 404 to 712. See Page 42. Division mileage is divided into sections, thirty to forty miles in length, each of which is manned by a sectionman and one or more helpers, who perform the necessary general maintenance operations, such as patching, weed removal, roadside clean-up, ditch cleaning, drainage, maintenance of signs, snow removal, and sanding. Special maintenance and betterment work, such as levelling courses, seal coating, major slide removal and major washout repair, is accomplished by combining two or more section crews, augmented by division headquarters' personnel. Division headquarters' personnel, manning reserve snow removal equipment, also assist section crews on snow removal operations when required.

The Division Engineers supervise and administer all maintenance work, stores and equipment pertaining thereto, and the operations of shop and storage facilities in each division. Division offices and shops are located at Butte, Great Falls, Billings, Wolf Point, Missoula, Kalispell, Havre, Miles City, Lewistown, Bozeman and Glendive. Storage quarters for section equipment are located at strategic places throughout the State.

In addition to maintaining shops in each division, a State Shop and Equipment Depot is maintained in Helena. This Depot maintains a garage, and services headquarters' personnel cars, overhauls and services State crusher crew and striping crew equipment, rebuilds motors for exchange in motorized field equipment, maintains stores of small tools, makes shipments to field as required, and fabricates standard signs for use throughout the State. The State crusher crew was discontinued during the biennium.

The Shop Office personnel processes all requisitions for equipment, supplies and materials to the State Controller where purchase orders are prepared and materials bought. They process all invoices pertaining to the above for payment, and supervise the maintenance of stock records, equipment inventories, small tool inventories, and keep an operating cost record of all equipment.

The Radio Section is supervised by a Communications Engineer under the direction of the Maintenance Engineer. The State radio communication system is well established and provides rapid and direct contact between Helena headquarters and the several divisions, between divisions, between division offices and field forces, and between radio equipped vehicles.

Maintenance expenditures, by items, for the biennium are shown on Page 40. A brief explanation of the items follows:

ITEM 1. GENERAL MAINTENANCE. General Maintenance is that phase of our operations covering routine maintenance work, such as oil mat patching, weed removal, drainage, signing, guard rail repair, snow fence erection and traffic services.

ITEMS 2 AND 3. SNOW REMOVAL AND SANDING. These items are General Maintenance items whose costs are kept separately.

ITEM 4. SPECIAL MAINTENANCE. Special Maintenance consists of maintenance work involving unusual expense and sometimes increased forces and additional equipment. Monies for this work are allocated to divisions as required.

ITEM 5. BETTERMENTS. Betterment work consists of additions to original construction, such as gravel base, increased thickness of oil mat, guard rail, improved drainage structures, etc. Allocation of monies for this work is made to Divisions as required.

Expenditures for General Maintenance, Special Maintenance, and Betterments by Work Numbers are shown on Page 41.

ITEMS 6 TO 14 represent undistributed overhead expense. These items are self-explanatory. It will be noted that the total of items 1 through 14 is the cost of Road Maintenance only, including all overhead. A statement showing Total Cost Per Mile for General Maintenance, Special Maintenance and Betterments is shown on Page 42.

ITEMS 15 TO 18. STORES ACCOUNTS. The amounts shown opposite these respective accounts reflect the increase or decrease in the stores for the period noted.

ITEM 19. EQUIPMENT RENTAL. The amount shown for this item is a reconciliation of the equipment account. State-owned equipment used on a construction project by engineering forces, or on a particular section of highway by maintenance forces, is charged to the job at an established hourly or daily rental rate. The total rentals collected on all equipment are calculated to pay the upkeep costs and cost of new equipment purchased during the fiscal year. Rentals collected in excess of repair costs, plus purchases, establishes a credit balance in this account. If rentals collected are less than repair costs plus purchases, the resultant debit balance represents a cash expenditure.

ITEMS 20 TO 24 represent cash expenditures for additions, such as buildings, to present facilities or new facilities constructed during the biennium.

ITEMS 25 TO 26 are included in maintenance operational costs, not chargeable to maintenance of primary roads.

Salary schedules for field maintenance employees, effective during the biennium, are shown on Page 39.

The following provisions are applicable and supplementary to the wage schedules shown on Page 39.

1. Designated work week for hourly employees, will be Monday through Friday except where type of duty, such as janitor work, servicemen, watchmen, etc., requires Saturday and Sunday work, in which case, the supervisor will designate the work week and employee will be given another day off in lieu of Saturday or Sunday.
2. Eight hours shall constitute a day's work and forty hours shall constitute a week's work for hourly employees and all work performed in excess of eight hours per day, or forty hours per week, or on days other than the designated work week, will be paid at the rate of time and one-half.
3. Hourly employees shall be paid eight hours at straight time for the following holidays not worked: New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day. When any of the above holidays fall on Sunday, the following Monday shall be considered as the holiday. Employees required to work on these days shall be paid at the rate of double time. If holiday falls on Saturday, then the preceding Friday shall be considered the holiday.
4. Employees on monthly rate will be expected to work such extra time over and above the 8-hour day and/or the 40-hour week as may be required to discharge their responsibilities.
5. Employees shall be classified strictly in accordance with the work they are performing, provided, however, that employees temporarily assigned to a higher rated position for any part of a 4-hour morning or afternoon period will receive the higher rate of pay during that period.
6. Truck Drivers will be paid $0.10 per hour additional to basic pay when engaged in snow removal operations or when towing 4-wheel trailers or semi-trailers mounted on fifth wheel. Does not include towing light trailers, such as spray units, tar pots, compressors, etc. This premium rate is not subject to time and one-half or double time.
7. Statutory expenses will be paid men engaged on mowing operations, equipment transfer (when not assigned to travelling crews), emergency snow removal, washouts, or other EMERGENCY assignments away from regular headquarters for short durations. This expense will be paid by claim.
8. Travel time rate $2.52 per hour based on speed to and from work at 45 M.P.H.

   Changed to $2.43 per hour on July 1, 1960.

   Changed to $2.52 per hour on July 1, 1961.
9. Conditions other than noted above will conform with signed agreements (9/1/59).

WAGE SCHEDULE FOR MAINTENANCE EMPLOYEES

(For All Counties Except Cascade, Deer Lodge and Silver Bow)

	Effective 7-1-60	Effective 7-1-61
The Following is a Monthly Schedule:		
Foreman: Division Maintenance	$563.00	$580.00
Foreman: Maintenance	536.00	553.00
Sectionman—Gang Foreman	523.00	540.00
Division Mechanic	563.00	580.00
Stockman	462.00	479.00
Timekeeper	462.00	479.00
Gasoline Distributor	462.00	479.00
The Following is an Hourly Schedule:		
Blacksmith	2.93	3.03
Carpenter: Foreman	3.28	3.38
Carpenter: Journeyman	3.06	3.16
Mechanic—Machinist	2.93	3.03
Working Shop Foreman	2.98	3.08
Painter: Journeyman	2.93	3.03
Painter: Sign	3.18	3.28
Motor Patrol Operator—Finisher	3.03	3.13
Shovel Operator	3.03	3.13
Hot Plant Operator	3.03	3.13
Core Drill Operator	3.03	3.13
Powderman	2.79	2.89
Weed Spray Operator	2.77	2.87
Steam Cleaner Operator	2.79	2.89
Broom Operator	2.77	2.87

	Effective 7-1-60	Effective 7-1-61
Caterpillar Operator	2.89	2.99
Crusherman	2.89	2.99
Distributor Driver and Leverman over 1000 gals.	2.79	2.89
Loader Operator—Front End—¾ to 1 cu. yd., incl.	2.77	2.87
Motor Patrol Operator	2.89	2.99
Roller Operator	2.77	2.87
Power Chip Box Operator	2.77	2.87
Tank Car Heater—Retort Operator	2.67	2.77
Compressor Operator	2.61	2.71
Concrete Mixer Operator	2.61	2.71
Pulvi-Mixer Operator	2.61	2.71
Leverman 1000 gal. and under	2.61	2.71
Loader Operator under ¾ cu. yd.	2.61	2.71
Mower Operator	2.61	2.71
Spreader Box Operator	2.61	2.71
Weighman	2.61	2.71
Greaser and Oiler—Serviceman	2.61	2.71
Dumpman	2.55	2.65
Semi-Skilled Labor	2.55	2.65
Laborer	2.43	2.53
Truck Driver, under 5 Ton	2.55	2.65
Truck Driver, 5 Ton and Over	2.61	2.71
Snow Removal and Towing	.10	.10

Monthly rate for weighmen: 1960, $462; 1961, $479

MAINTENANCE EXPENDITURES

Item No.	Item Description	Fiscal Year 1960-61	Fiscal Year 1961-62	Biennium
	GENERAL MAINTENANCE			
1.	General Maintenance. All Items except 2 and 3	$ 4,490,432.76	$ 4,487,176.09	$ 8,977,608.85
2.	Snow Removal	477,114.32	841,936.97	1,319,051.29
3.	Sanding	548,948.50	719,427.62	1,268,376.12
	SUB-TOTAL GEN. MAINT. LESS OVERHEAD	$ 5,516,495.58	$ 6,048,540.68	$11,565,036.26
4.	SPECIAL MAINTENANCE—LESS OVERHEAD	$ 158,059.08	$ 130,468.68	$ 288,527.76
5.	BETTERMENTS—LESS OVERHEAD	$ 893,113.51	$ 1,133,363.97	$ 2,026,477.48
	OVERHEAD CHARGES			
6.	Annual Leave and Sick Leave	$ 65,171.57	$ *	$ 65,171.57
7.	Supervision	279,246.54	320,060.41	599,306.95
8.	Industrial Accident Insurance	14,827.01 Cr.	8,535.64 Cr.	23,362.65 Cr.
9.	Administration—Helena Shop	48,218.60	61,140.59	109,359.19
10.	Gasoline Distribution	4,619.22	4,990.72	9,609.94
11.	Insurance on Maint. Buildings and Stores	25,079.61	26,429.24	51,508.85
12.	Upkeep and Repair of Maintenance Buildings	37,472.34	34,286.94	71,759.28
13.	Upkeep and Repair of Shop Equipment	8,717.78	8,467.50	17,185.28
14.	Upkeep and Repair of Radio Facilities	62,066.89	76,943.64	139,010.53
	SUB-TOTAL—OVERHEAD CHARGES	$ 515,765.54	$ 523,783.40	$ 1,039,548.94
	SUB-TOTAL—ROAD MAINTENANCE ONLY INCL. OVERHEAD	$ 7,083,433.71	$ 7,836,156.73	$14,919,590.44
	STORES ACCOUNTS—INCREASE OR DECREASE			
15.	Crushed Gravel	$ 331,117.30	$ 45,513.63	$ 376,630.93
16.	District Stores	61,815.25	70,565.43 Cr.	8,750.18 Cr.
17.	Equipment Stores	19,886.04	843.24 Cr.	19,042.80
18.	Helena Stores	6,780.61 Cr.	1,797.46	4,983.15 Cr.
	SUB-TOTAL STORES INCREASE OR DECREASE	$ 406,037.98	$ 24,097.58 Cr.	$ 381,940.40
19.	EQUIPMENT ACCOUNT			
	Rental Earned	$ 2,009,184.04 Cr.	$ 2,123,426.92 Cr.	$ 4,132,610.96 Cr.
	Repair Costs	1,409,984.93	1,526,282.19	2,936,267.12
	Purchases	662,869.55	466,942.48	1,129,812.03
	SUB-TOTAL—RENTAL EXCESS OR DEFICIT	$ 63,670.44 Dr.	$ 130,202.25 Cr.	$ 66,531.81 Cr.
	CAPITAL ASSET BUILDING ACCOUNTS			
20.	New Bldgs., Storage, Weighing Stations, Etc.	$ 176,861.46	$ 188,589.06	$ 365,450.52
21.	New Fuel Oil Facilities and Repairs	10,601.40	4,733.32	15,334.72
22.	New Road Oil Facilities and Repairs	10,766.88	2,207.19	12,974.07
23.	New Shop Tools	18,154.49	24,755.42	42,909.91
24.	New F. M. Radio Stations	6,221.03	20,855.12	27,076.15
	Authorized Shop Expenditures Not Distributed	70,231.69 Cr.	5,176.67	65,055.02 Cr.
	SUB-TOTAL—CAPITAL ASSET BUILDING	$ 152,373.57	$ 246,316.78	$ 398,690.35
	MISCELLANEOUS			
25.	Weighing	$ 121,949.82	$ 127,674.91	$ 249,624.73
26.	Miscellaneous Refunds Due	25,983.45 Cr.	21,835.76 Cr.	47,819.21 Cr.
	SUB-TOTAL MISCELLANEOUS	$ 95,966.37	$ 105,839.15	$ 201,805.52
	TOTAL CASH OUTLAY—MAINTENANCE EXPENDITURES	$ 7,801,482.07	$ 8,034,012.83	$15,835,494.90

* Now prorated to work involved.

Store Value of Items 15, 16, 17, 18:	6-30-60	6-30-62
Crushed Gravel	$ 2,738,764.02	$ 3,115,394.95
District Stores	501,491.97	492,741.79
Equipment Stores	396,488.80	415,531.60
Helena Stores	40,898.41	35,915.26
	$ 3,677,643.20	$ 4,059,583.60

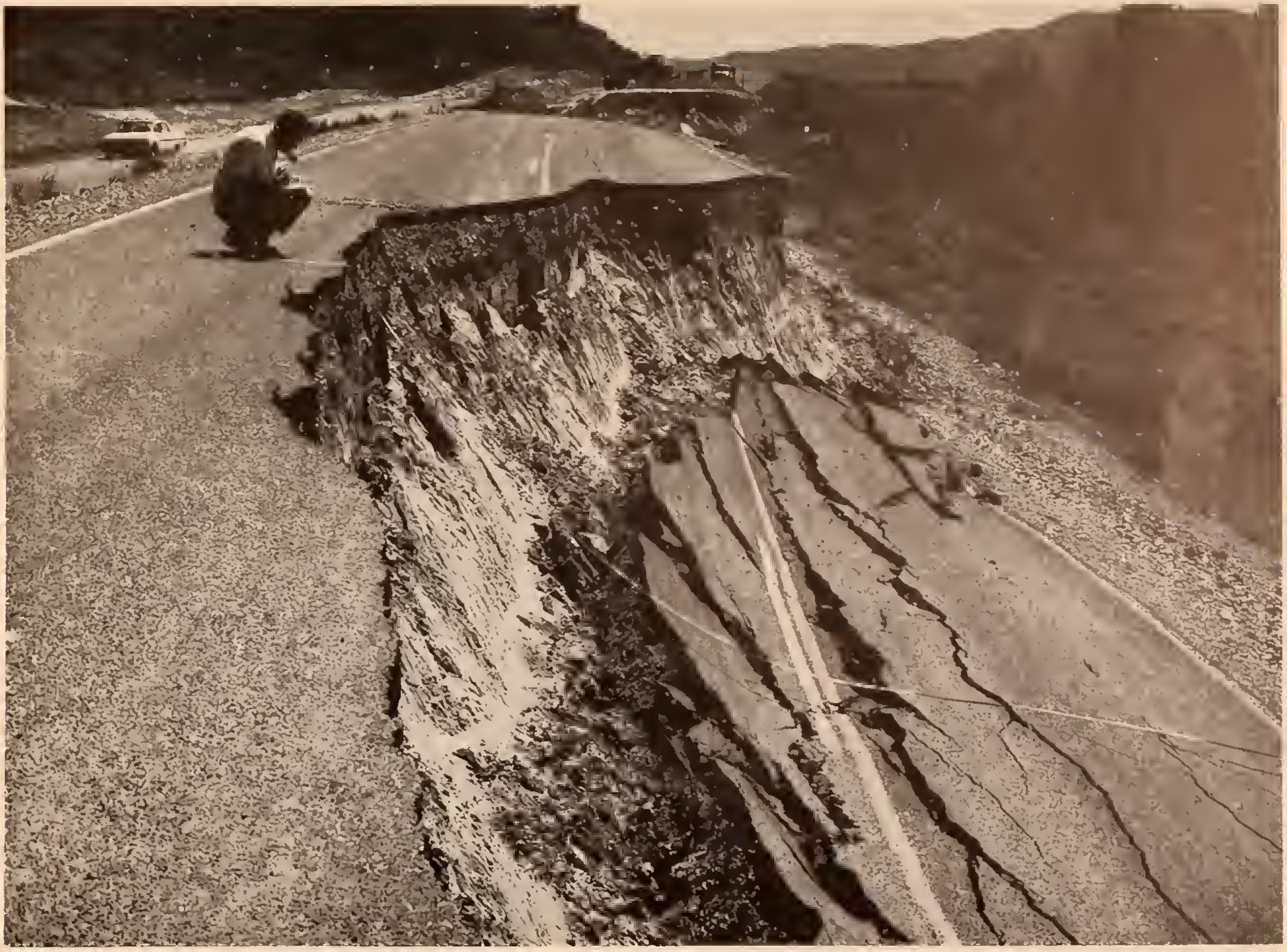
MAINTENANCE EXPENDITURES BY WORK NUMBERS — INCLUDING OVERHEAD

Work No.	Work Description	Fiscal Year 1960-61	Fiscal Year 1961-62	Biennium
11	Dirt Surface	$ 20,975.66	$ 15,969.33	$ 36,944.99
12	Gravel Surfaces	32,738.22	11,257.78	43,996.00
13	Concrete Surfaces	3,352.55	1,202.39	4,554.94
14	Oiled Surfaces	2,959,352.14	3,009,550.20	5,968,902.34
19	Damages by Travelling Public	----	150.49	150.49
20	Grasshopper Control—Seeding	3,888.63	659.56	4,548.19
21	Shoulders and Approaches	226,367.84	208,131.87	434,499.71
22	Slopes, Ditches and Small Drainage	496,525.09	482,969.54	979,494.63
23	Sidewalks and Footpaths, except on Bridges	52.07	--	52.07
24	R/W Markers and Fences	2,017.12	3,250.81	5,267.93
25	Weed Removal—Mowing and Hand Tools	260,754.45	232,725.35	493,479.80
26	Major Slide Removal and Washout Repair	30,764.44	21,221.81	51,986.25
27	Weed Control: Chemical	63,026.19	87,328.35	150,354.54
28	Embankment Widening	----	----	----
29	Channel Change and Cleaning	----	1,156.09	1,156.09
31	Minor Struc.: Br. Under 20 Ft. and Culverts Over 16 Sq. Ft. Area	12,870.66	17,815.03	30,685.69
32	Bridges over 20 ft.	153,512.55	88,530.97	242,043.52
33	Divider Curb	881.33	3,210.56	4,091.89
38	Underpasses	3,039.51	5,128.18	8,167.69
39	Riprap, Jetties and Miscl. Structures	20,984.30	2,198.74	23,183.04
40	Detours	93.55	--	93.55
41	Guard Rail and Guide Posts	72,057.43	62,081.00	134,138.43
42	Signs and Signals	206,667.14	238,786.17	445,453.31
43	Historic Markers	5,752.86	5,645.03	11,397.89
44	Beautification of Campsites	18,922.19	19,242.64	38,164.83
45	Traffic Lines	216,761.14	260,191.45	476,952.59
46	Snow Removal	513,896.97	901,210.09	1,415,107.06
47	Snow Fence	85,422.00	80,356.65	165,778.65
48	Sanding	591,269.14	770,075.97	1,361,345.11
49	Roadside Camps	19,084.23	16,223.73	35,307.96
52	Rentals, Light, Heat, Power, Telephone	73,794.49	83,171.46	156,965.95
53	Maintenance of Yards	33,278.84	28,488.56	61,767.40
57	Weighing	131,351.23	136,663.34	268,014.57
60	Grading: Widening Base Course Gravel	1,712.76	7,531.03	9,243.79
70	Gravelling: Top Course	251,977.68	240,459.44	492,437.12
80	Oiling: Penetration, Tight Blade and Road Mix	395,391.08	367,011.41	761,402.49
90	Oiling: Seal Coat	297,848.05	554,236.62	852,084.67
		$ 7,205,383.53	$ 7,963,831.64	$15,169,215.17

STATEMENT SHOWING TOTAL COST PER MILE, INCLUDING OVERHEAD, FOR GENERAL MAINTENANCE, SPECIAL MAINTENANCE AND BETTERMENTS

Location	FISCAL YEAR 1960-61 Miles Maintained	FISCAL YEAR 1960-61 Total Cost	FISCAL YEAR 1960-61 Cost Per Mile	FISCAL YEAR 1961-62 Miles Maintained	FISCAL YEAR 1961-62 Total Cost	FISCAL YEAR 1961-62 Cost Per Mile
Missoula	665	$1,258,850.44	$1,893.01	712	$1,448,665.88	$2,034.64
Kalispell	476	783,541.66	1,646.10	526	831,135.29	1,580.11
Butte	529	762,742.98	1,441.86	542	833,777.36	1,518.04
Bozeman	564	590,454.81	1,046.91	601	685,014.96	1,139.79
Great Falls	658	1,021,530.38	1,552.48	656	1,173,038.92	1,788.17
Havre	431	516,148.31	1,197.56	465	588,466.72	1,265.52
Glendive	394	334,566.07	849.15	404	337,368.60	835.07
Wolf Point	531	415,936.78	783.31	556	443,841.63	798.28
Lewistown	409	338,309.76	827.16	462	377,052.22	816.13
Billings	613	686,892.20	1,120.54	634	739,031.01	1,165.66
Miles City	570	496,410.14	870.89	570	517,439.05	907.79
ALL-STATE	5,840	$7,205,383.53	$1,180.13	6,128	$7,963,831.64	$1,299.58

Slides on U. S. No. 2 near Nyack south of Glacier National Park.



"So the highway slides out from under us!"—This happened on State Route 20 west of Lincoln during the spring of 1962.

DISTRICT ENGINEER

The State has been divided into five areas for administrative and functional purposes. District Headquarters are at Missoula, Butte, Great Falls, Billings and Glendive. (See the map on Page 45). The Highway Department functions and operations in each area or district are under the supervision of a District Engineer. He is the chief authority in the District, subject, of course, to Headquarters approval, and all operations, highway locations, construction projects, right-of-way procurement, highway maintenance and the like are subject to his approval. These men must maintain constant contact and knowledge of laws, regulations, established procedures and other practices of the Highway Department and the Bureau of Public Roads. They also are expected to be well acquainted with the general public in their respective areas and the desires and needs which develop from time to time.

Each of the five administrative Districts is divided into two or three Divisions under the jurisdiction of Division Engineers. Division headquarters are located at Kalispell, Missoula, Butte, Bozeman, Great Falls, Havre, Billings, Miles City, Glendive, Wolf Point and Lewistown. The Division Engineer, subject to District Engineer approval, is the highest authority in the Division. In some Divisions there are two Division Engineers, dependent upon the work load—one being in charge of construction operations and the other in charge of maintenance operations. Other Divisions have only one Division Engineer, he being in charge of both construction and maintenance. These men also are involved in highway locations, right-of-way matters and any other functions which may be delegated to them by the District Engineer.

These District and Division Engineers have in charge, and are responsible for, the activities of engineers on location and construction projects, maintenance men along the various highway routes and personnel in offices and shops.

Each Division office has a small staff of clerical help, engineering designers and the like. The State Laboratory has a contingent of equipment and personnel in each Division so that a close check can be made on all location and construction operations.

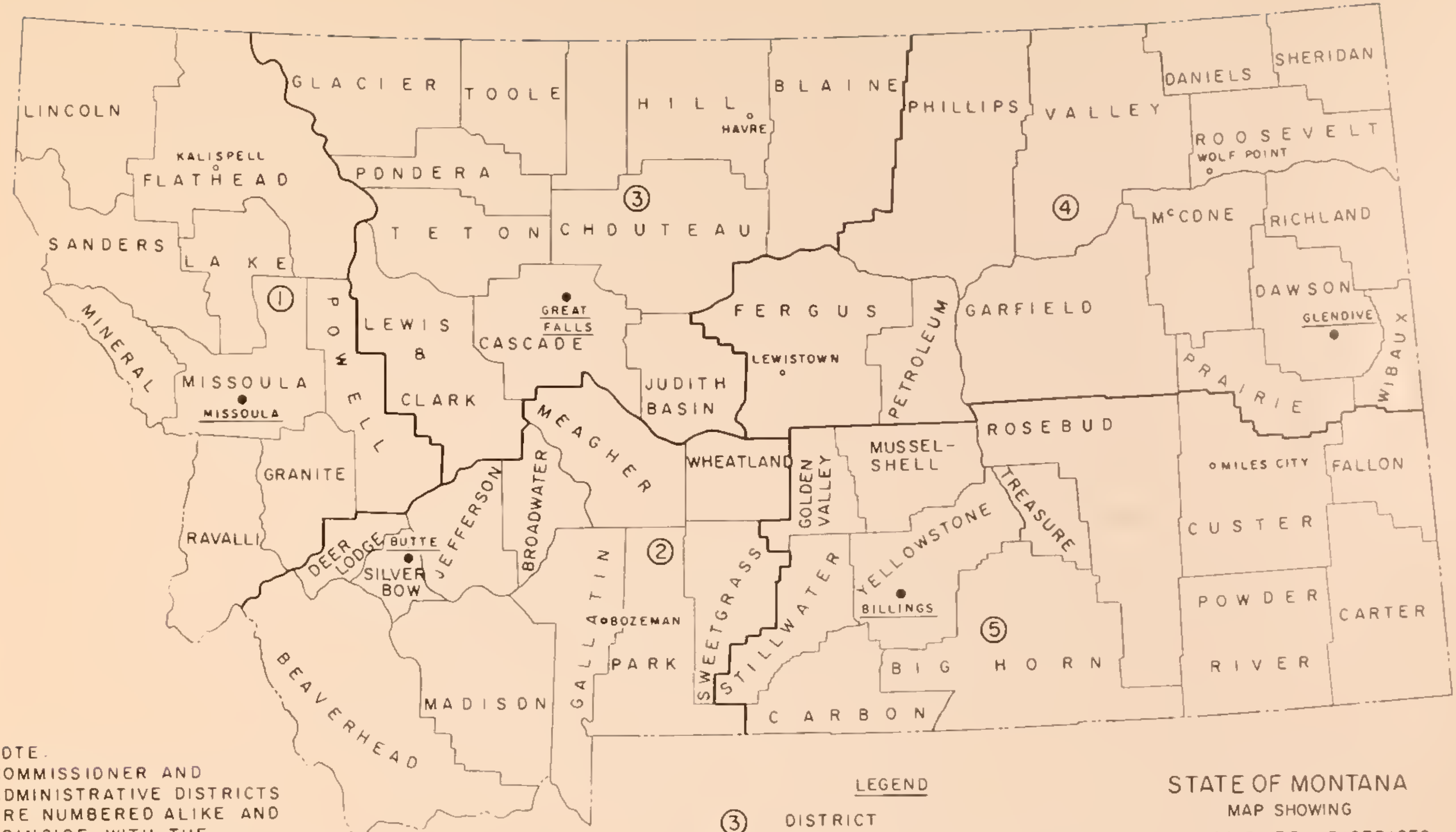
Each shop has a fleet of automobiles and such other equipment as is required by the functions of the Department in location, construction and maintenance. Trained mechanics are on hand to service and maintain the equipment.

Every project under construction is in charge of a resident or project engineer and staff—all trained in or learning the aspects and fundamentals of civil engineering. When these men are not busy with construction, they are working on location assignments for new or changed highways.

Two or more representatives of the Right-of-Way Division are assigned to each Division to maintain constant knowledge with highway and public needs and to deal expeditiously with problems confronting right-of-way procurement.

The highway system is divided into short sections of convenient length for maintenance purposes and two or more men maintain each section and keep it in as good and safe operating condition as is practicable.

Interstate 90 enters Rocky Canyon east of Bozeman.



NOTE.
COMMISSIONER AND ADMINISTRATIVE DISTRICTS ARE NUMBERED ALIKE AND COINCIDE WITH THE FOLLOWING EXCEPTIONS:

(1) LEWIS & CLARK, JEFFERSON & BROADWATER COUNTIES ARE IN COMMISSIONER DISTRICT NO I

(2) POWELL COUNTY IS IN COMMISSIONER DISTRICT NO 2

LEGEND

③ DISTRICT
● GREAT FALLS DISTRICT HEADQUARTERS
○ HAVRE DIVISION HEADQUARTERS

STATE OF MONTANA

MAP SHOWING
COMMISSIONER DISTRICTS
AND
ADMINISTRATIVE DISTRICTS
OF THE
MONTANA HIGHWAY DEPARTMENT

STATE PARKS DIVISION

This Division is required, by Section 62-309 of the 1947 Codes, to submit a biennial report.

This is being submitted to the Governor and the Legislative Assembly under separate cover.

ADVERTISING DEPARTMENT

This Department makes a regular biennial report to the Governor and the Legislative Assembly and it is being submitted under separate cover.

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